

No. 2014-1719

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

NIKE, INC.,

Appellant,

v.

ADIDAS AG,

Appellee.

Appeal from the United States Patent and Trademark Office,
Patent Trial and Appeal Board in No. IPR2013-00067

BRIEF FOR APPELLANT NIKE, INC.

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December 15, 2014

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CERTIFICATE OF INTEREST

Counsel for Appellant Nike, Inc. certifies the following:

1. The full name of every party or *amicus* represented by us is:

Nike, Inc.

2. The names of the real party in interest represented by us is:

Not Applicable

3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party or amicus curiae represented by me are:

None

4. The names of all law firms and the partners or associates that appeared for the party or amicus now represented by me in the trial court or agency or are expected to appear in this court are:

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STATEMENT OF RELATED CASES

No other appeal from this *inter partes* review was previously before this or any other appellate court.

The Court's decision in this case may affect or be affected by several pending appeals from *inter partes* reviews in which the Patent Trial and Appeal Board ("Board") denied a patent owner's motion to amend a patent on the ground that the patent owner failed to establish the patentability of amended claims over prior art not of record, including *Microsoft Corp. v. Proxyconn, Inc.*, Nos. 2014-1542, -1543, and *Helperich Patent Licensing, LLC v. CBS Interactive, Inc.*, No. 2014-1556. Counsel for Appellant Nike, Inc. are unaware of any other case pending in this or any other court that will directly affect or be directly affected by the Court's decision in this appeal.

JURISDICTIONAL STATEMENT

This appeal arises from an *inter partes* review before the Board under 35 U.S.C. §§ 311 *et seq.* The Board entered a Final Written Decision on April 28, 2014. A1-43. Patent owner Nike, Inc. noticed a timely appeal on June 30, 2014. A2484-88; 35 U.S.C. § 142. This Court has jurisdiction under 28 U.S.C. § 1295(a)(4)(A) and 35 U.S.C. §§ 141(c), 319.

INTRODUCTION

Appellant Nike, Inc. (“Nike”) invented a novel, multi-textured “upper” portion of a shoe that is knit directly into the shape of an upper—unlike prior art materials, where the shoe upper was cut from a larger web of material, thus requiring additional cutting processes and resulting in significant wasted material. Nike’s new shoe upper, which Nike markets under its FLYKNIT trade name, was recognized as a “quantum leap” in the field, A2141-42(40:22-41:3)(Frederick Dep.), and it satisfied a long-felt need for an athletic shoe that could be more efficiently manufactured because, among other things, it eliminated the need to cut a multi-textured upper from a larger web of material. Nike’s novel shoe upper is protected by U.S. Patent No. 7,347,011 (“the ’011 patent”).

Five months after Nike introduced FLYKNIT, its competitor Adidas AG (“Adidas”) announced a similar product that Adidas called Primeknit. A few months after that, Adidas petitioned for *inter partes* review (“IPR”) of all claims of the ’011 patent. After the Board instituted review, Nike moved to amend the claims in order to add further narrowing limitations distinguishing the prior art of record. The Board denied the motion, ruling that the proposed amended claims were obvious and that Nike had failed to meet a supposed burden to demonstrate the amended claims’ patentability over prior art *not* of record—a burden not found

in the statute or applicable regulations, but imposed by the Board itself through its own decisions.

The Board’s decision contains several errors, any one of which requires reversal or vacatur. ***First***, the Board improperly concluded that a person of ordinary skill in the art would have modified three prior art references—Nishida, which involved a pattern of shoe uppers to be cut from a larger textile web, and Schuessler I and II, which involved knitting a hat to shape—to achieve the claimed invention, applying hindsight bias to assemble the claim elements from disparate sources in the absence of any identifiable motivation to combine them. The Board compounded its error by failing to address objective indicia of nonobviousness, completely ignoring the evidence of a long-felt need for Nike’s invention. And the Board incorrectly found that Nishida disclosed an element of dependent claim 49—lacing apertures formed by omitting stitches—which even Adidas’s expert could not identify in the reference. A1517(150:10-17)(Frederick Dep.).

Second, the Board’s imposition on Nike of a substantive burden of proving patentability—over prior art of record as well as prior art not of record—was contrary to law. Congress has provided that, in an *inter partes* review, “***the petitioner*** shall have the burden of proving a proposition of unpatentability by a preponderance of the evidence.” 35 U.S.C. § 316(e).¹ No statutory or regulatory

¹ Except as otherwise noted, each emphasis in this brief is added.

provision supports the Board's effort to shift the burden to Nike in the context of a motion to amend. Such a shifting of the burden would have to be done, if at all, through formal rulemaking and notice-and-comment procedures. Moreover, because the Board's burden-shifting scheme is contrary to the governing statute, the agency could not have imposed such a burden on Nike even had it followed proper rulemaking procedure.

The Board's decision should be reversed or vacated.

STATEMENT OF ISSUE ON APPEAL

Whether the Board erred in denying Nike's motion to amend.

STATEMENT OF CASE AND FACTS

A. The Parties

Nike is one of the world's leading designers of athletic footwear, apparel, and sports equipment. It has been awarded over 4,500 patents by the PTO.² The '011 patent at issue here is directed to Nike's "FLYKNIT" technology, in which the "upper" (non-sole) portion of a shoe is constructed as a single multi-textured unit, allowing for lighter, more efficient manufacture. A62(3:20-54); A66(11:4-41); A2149(48:8-23). Nike first unveiled its FLYKNIT technology in February 2012, and it was quickly hailed as a "quantum leap" in the field. A2026; A2141-42(40:22-41:3)(Frederick Dep.).

² PTO Patent Database, *available at* <http://patft.uspto.gov/netahtml/PTO/search-adv.htm> (4,694 patents assigned to Nike) (last visited Dec. 15, 2014).

Adidas also manufactures footwear, clothing, and accessories. In comparison to Nike, it has been awarded fewer than 300 patents by the PTO.³ In July 2012, five months after Nike announced FLYKNIT, Adidas announced a similar product of its own that it called Primeknit. A1479-80(112:10-113:11)(Frederick Dep.); A2034 (“[A]didas has just released its adizero Primeknit [shoe] which looks very similar to Flyknit.”). Four months later, Adidas petitioned the Board to institute an *inter partes* review of Nike’s ’011 patent.

B. Technology Background

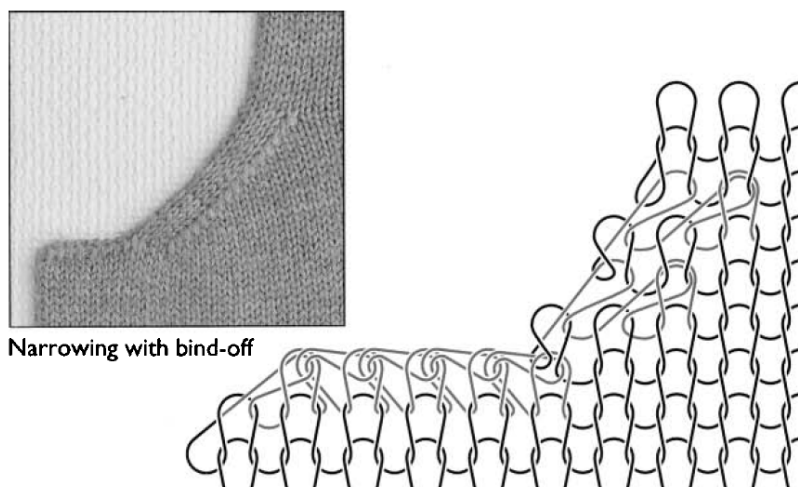
Conventional articles of athletic footwear include two primary elements: an upper and a sole. A61(1:12-13). The upper provides a covering for the foot and positions the foot with respect to the sole. *Id.*(1:13-15). A lacing system is often incorporated into the upper to permit the wearer to adjust its dimensions. *Id.*(1:36-40). Typically, the upper will also provide ventilation to cool the foot and remove perspiration. *Id.*(1:15-18). The upper is secured to the sole, which functions as a cushion between the foot and the ground and serves to attenuate ground reaction forces, absorb energy, and provide traction. *Id.*(1:18-24).

Athletic footwear uppers are manufactured from a variety of materials, and often feature multiple layers made from different materials. *Id.*(1:44-48). For example, an upper may consist of an exterior layer made of leather (to provide

³ PTO Patent Database, *available at* <http://patft.uspto.gov/netahtml/PTO/search-adv.htm> (298 patents assigned to Adidas) (last visited Dec. 15, 2014).

wear-resistance) combined with synthetic or natural textile (to provide flexibility), an intermediate layer of lightweight polymer foam (to provide cushioning and protection), and an interior layer of moisture-wicking textile (to remove perspiration). *Id.*(1:48-66).

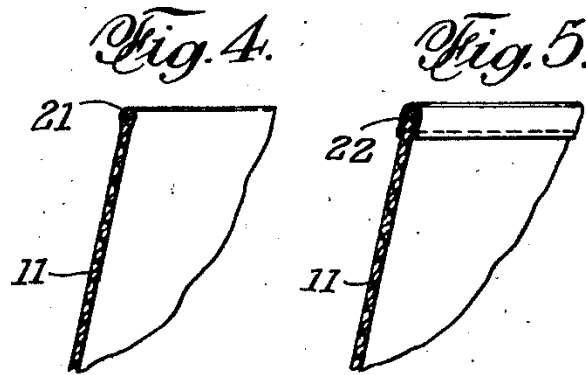
Textile elements for uppers are made by a variety of different processes, and are often made by “knitting,” *i.e.*, interlocking loops of one or more yarns to create a fabric. A63(6:61-63); A1663. “Flat knitting” refers to a technique for producing a fabric in a generally flat form, with yarn alternating back and forth across the width of the fabric. A1663; A14-16. Flat knitting may be used to “knit to shape,” meaning that the textile is knit into its final form in the first instance. A22-23; A1574-75(¶¶40-41). In this manner, the edges of the textile are “flat knit edges” that are unbroken and remain joined between the rows:



A847 (top portion of Figure 16.10); *see also* A22-23; A1575(¶41); A1608(¶105).

By contrast, if a textile element is cut from a larger web of material, its edges must

be treated (such as by further stitching or searing) in order to prevent fraying and unraveling:

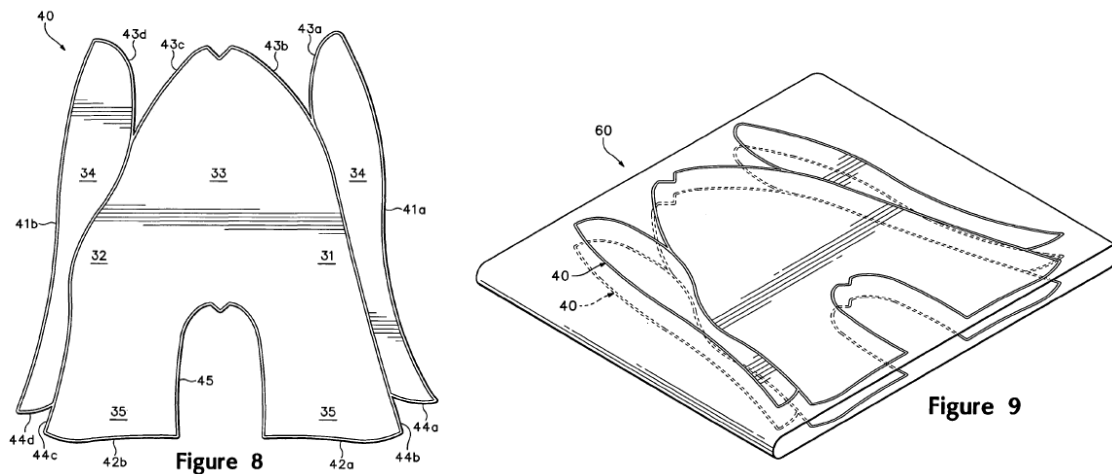


A570(Fig. 4)(Whiting) (depicting a cut edge that is seared to fuse the fibers at the edge); *id.*(Fig. 5)(Whiting) (depicting a cut edge that is finished by stitching on a separate binding to cover the edge); *see also* A18; A565(2:39-63)(Glidden); A572(3:68-4:16)(Whiting); A1606-07(¶¶102-04).

C. Nike's Invention

The '011 patent is generally directed to an article of footwear having a textile upper that is “a single material element that is formed to exhibit a unitary (*i.e.*, one-piece) construction.” A63(5:38-39). The patent further defines “unitary construction” as “a configuration wherein portions of a textile element are not joined together by seams or other connections.” *Id.*(6:42-46). This type of unitary construction can be accomplished either by using a technique such as flat knitting to knit the textile directly into the shape of the upper in the first instance (as

depicted in the patent's Figure 8) or by cutting an upper from a larger textile element (as depicted in the patent's Figure 9):



A54(Fig. 8); A55(Fig. 9); *see also* A1483(116:3-20)(Frederick Dep.). When the upper is removed from a larger textile material as in Figure 9, it has cut edges that must be further processed (*e.g.*, by additional stitching or searing) to prevent unraveling and fraying. A64(8:8-10); A1575(¶41). By contrast, when the upper is flat knit directly into the form depicted in Figure 8, the upper has flat knit edges that do not require further processing. A1574(¶40).

Figure 11 further illustrates an embodiment of the unitary (*i.e.*, one-piece) upper:

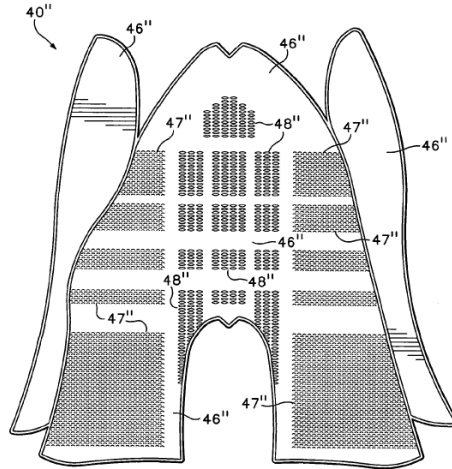


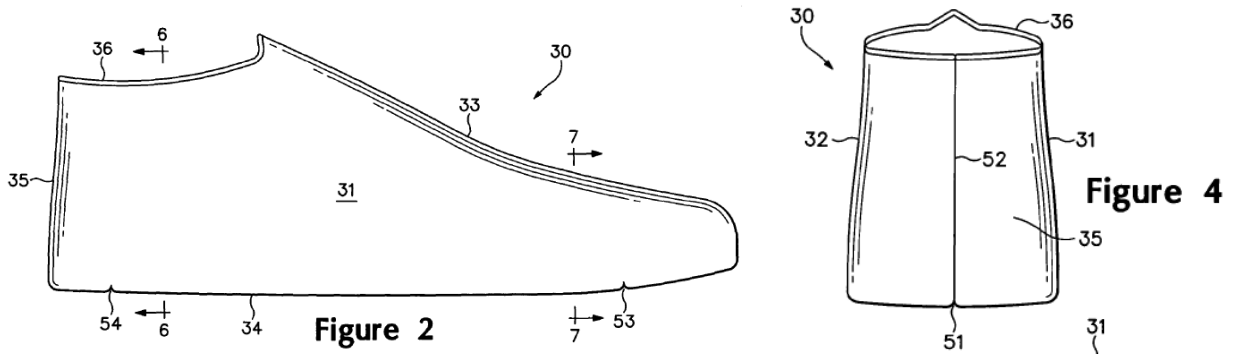
Figure 11

A57(Fig. 11); A65(9:36-10:14). As seen above, the textile element includes three different areas with three different textures, labeled 46'', 47'', and 48''. A65(9:38-46). The '011 patent teaches that this feature of varying the textures within the upper can be achieved by adjusting the type of stitching used to knit the textile:

The different textures 46''-48'' are formed by merely varying the type of stitch formed by the wide-tube circular knitting machine at each location of textile element 40''. Textures 46''-48'' may exhibit aesthetic differences, or the differences may be structural. For example, the degree of stretch in areas with textures 46''-48'' may be different, or the wear resistance of the areas may vary depending upon the stitch utilized. The air-permeability of textile element 40'' may also vary in the different areas.

Id.(9:46-54). Different types of yarn also may be used in different areas of the textile to impart different properties to each area. *Id.*(9:65-10:14). Additionally, apertures (such as apertures for receiving laces) may be formed in the upper by omitting stitches at specific locations during the knitting process. *Id.*(9:56-58, 10:20-25).

After a flat knit textile element such as the one depicted in Figure 8 and Figure 11 is knit to shape, various flat knit edges may be joined together to provide a lateral region [31], an opposite medial region [32], an instep region [33], a lower region [34], a heel region [35], and an ankle opening [36]:



A50(Fig. 2); A52(Fig. 4); A63(5:18-20, 6:22-24).

Nike's unitary upper provides various advantages over the prior art. Conventional uppers typically featured a variety of different materials that needed to be individually stitched together or adhesively joined. A66(11:6-18). Forming a textile upper in a single, unitary element increases efficiency by eliminating the steps required to assemble and join different materials. *Id.*; see also A61-62(2:62-3:16); A65(9:23-35). These efficiencies are further increased through Nike's novel use of flat knitting techniques to create the upper. In contrast to uppers that must be removed from a larger textile element (*e.g.*, by "die-cutting, laser-cutting, or other conventional cutting operation") (A64(8:8-10)), flat knit embodiments

involve an upper formed without a surrounding textile structure from which it must be removed, thus eliminating the additional “cutting operation.” A1578-79(¶46).

Knitting an upper to shape in the first instance also eliminates the expense and waste associated with the extraneous material that results when an upper is removed from a larger textile element. *Id.*; see also A545(2:11-39) (discussing the long-felt need to reduce such “cutting waste”). In addition, knit-to-shape uppers have flat knit edges; unlike cut edges, flat knit edges do not require the manufacturer to take steps to stabilize the edges to prevent unraveling and fraying. A1574(¶40); A1579(¶46).

In February 2012, Nike announced the launch of its first sneaker utilizing its “FLYKNIT” technology, which features a flat knit, unitary upper with areas of varying textures as described in the ’011 patent:

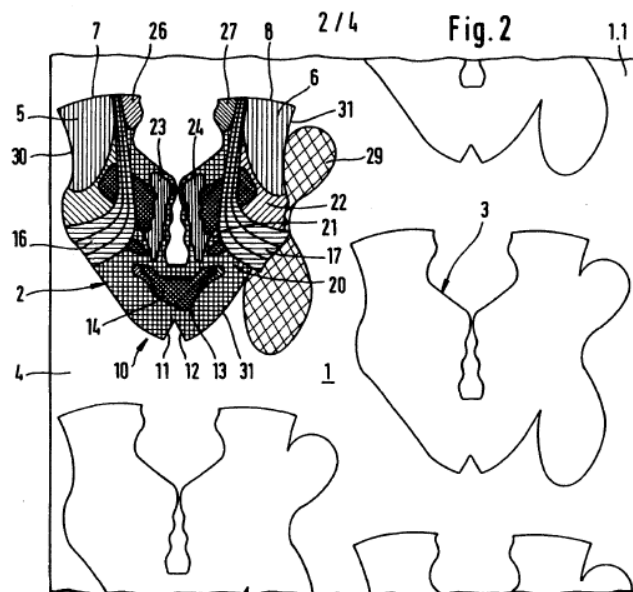


A2149(48:8-23)(Frederick Dep.); A2018-19(¶31)(Frederick); A2026-34.

D. Proceedings Before The Board

On November 28, 2012, Adidas petitioned the Board for an *inter partes* review of the '011 patent, asserting that its 46 claims were invalid as anticipated or obvious in view of various prior art references. A69. Adidas filed a revised petition on December 10, 2012 to correct technical errors in its original petition. A1051-52; A1059.

Adidas's primary reference was U.S. Patent No. 5,345,638 ("Nishida"), which discloses a process for creating uppers that are cut from a web of textile material and then shaped and connected to a sole. A545(1:48-2:5)(Nishida). Nishida explains that removing uppers from a larger web of material results in excess leftover material, *i.e.*, "cutting waste." *Id.*(2:11-33)(Nishida). Nishida attempts to solve the problem of cutting waste by creating an efficient pattern on the textile web to minimize the amount of unused material:



A542(Fig. 2)(Nishida); A545(2:21-33)(Nishida). Nishida further teaches that thinner, less expensive material may be used for the portions of the pattern to be discarded, thereby further reducing cutting waste. A545(2:11-22)(Nishida). Because the Nishida upper is removed from a larger web of material—rather than “knit to shape”—the cut edges of the upper must be treated to prevent fraying or unraveling. A18; A565(2:43-63)(Glidden); A572(3:68-4:16)(Whiting); A1606-07(¶¶102-04).

On May 17, 2013, the Board instituted review of the 46 claims of the '011 patent. The Board's Decision on Institution relied on the arguments that the claims were anticipated or obvious in light of Nishida or else a separate prior art reference, U.S. Patent No. 2,147,197 (“Glidden”), directed to a sock-shaped shoe upper. A1164.

The Board's Decision on Institution also stated that the '011 patent used various knitting terms (such as “weft knitted”⁴ and “flat knitted”) in a manner consistent with their ordinary meanings as conventional, known knitting techniques. A1160-64.

On August 19, 2013, Nike moved to amend the '011 patent. Nike's proposed amendments would have canceled issued claims 1-46 and substituted four new claims, specifically substituting claim 47 for issued claim 16, substituting

⁴ “Weft knitting” is a general class of knitting that includes “flat knitting.” A1663.

claims 48 and 49 for issued claim 19, and substituting claim 50 for issued claim 20. Claim 47 amends claim 16 by replacing the requirement for a “weft-knitted” textile element with a requirement for a “flat knit” textile element having “flat knit edges” (*i.e.*, such that the upper is not removed from a larger textile material but is knit to shape in the first instance):

Claim 47. (Substitute for independent claim 16) An article of footwear comprising an upper incorporating a ~~[weft-knitted]~~ flat knit textile element, the flat knit textile element (1) having flat knit edges free of surrounding textile structure such that the flat knit edges are not surrounded by textile structure from which the textile element must be removed, some of the flat knit edges joined together to form an ankle opening in the upper for receiving a foot, the ankle opening having an edge comprised of one of the flat knit edges; and (2) having a first area and a second area with a unitary construction, the first area being formed of a first stitch configuration, and the second area being formed of a second stitch configuration that is different from the first stitch configuration to impart varying properties to the textile element; and a sole structure secured to the upper.

A1226-27. Dependent claims 48 and 50 add an additional limitation that the edges of the flat knit textile element are joined to form a lateral region, a medial region, an instep region, and a heel region. Dependent claim 49 additionally requires a plurality of apertures formed by omitting stitches in the flat knit textile element and positioned in the upper for receiving laces:

Claim 48. (Substitute for dependent claim 19) The article of footwear recited in claim ~~[16]~~ 47, wherein at least one of the first stitch configuration and the second stitch configuration forms an aperture in the ~~[weft-knitted]~~ flat knit textile element and the joined edges shape the flat knit textile element to form a lateral region, a medial region, an instep region and a heel region of the upper.

Claim 49. (Second substitute for dependent claim 19) The article of footwear recited in claim [46] 47, wherein at least one of the first stitch configuration and the second stitch configuration forms [~~an aperture~~] a plurality of apertures in the [~~weft-knitted~~] flat knit textile element, the apertures formed by omitting stitches in the flat knit textile element and positioned in the upper for receiving laces.

Claim 50. (Substitute for dependent claim 20) The article of footwear recited in claim [46] 47, wherein the [~~weft-knitted~~] flat knit textile element is one of an exterior layer, an intermediate layer, and an interior layer of the upper, and the joined edges shape the flat knit textile element to form a lateral region, a medial region, an instep region and a heel region of the upper.

A1227.

In support of its motion to amend, Nike explained that Nishida does not disclose a knit-to-shape upper, but rather an upper that is cut from a larger web of material, and therefore has broken edges that must be further treated to prevent unraveling and fraying. A1232-34.⁵ Nike further explained that, while knitting to shape was a known method of knitting, Nishida was directed to a fundamentally different concept: increasing the efficiency of a pattern of textiles to be cut from a larger textile element. *Id.* Thus, a person of ordinary skill would not have been motivated to modify Nishida to create a knit-to-shape upper, which is the opposite of knitting a pattern of uppers to be removed from a larger textile element. A1233-

⁵ Nike supported its motion to amend with a declaration from Raymond Tonkel, an expert in the design and development of footwear with over 40 U.S. utility and design patents and over 30 years of experience designing and developing footwear, including as a managing director and vice president of footwear design at companies such as Adidas, Nike, Reebok, and Rockport. A1558-60(¶¶2-6).

34. Nike also explained that Nishida failed to disclose the additional limitation of claim 49—a plurality of apertures for receiving laces that are formed by omitting stitches in the flat knit textile element. A1234-35.⁶

On November 12, 2013, Adidas filed its opposition to Nike’s motion to amend. Adidas conceded that Nishida does not disclose a knit-to-shape upper, but argued that the amended claims were anticipated or obvious in view of Nishida alone or in combination with two references not addressed in its earlier papers—U.S. Patent No. 2,178,941 (“Schuessler I”) and U.S. Patent No. 2,150,730 (“Schuessler II”). The Schuessler references are directed to a method of making a knitted “helmet” (*i.e.*, a hat or cap) in a single piece that does not require cutting, and a knitting machine capable of weaving stitches that have varying degrees of tightness in order to facilitate such knitting to shape. Adidas also submitted a declaration by its expert, Dr. Edward Frederick, who opined that the efficiencies provided by Nike’s invention would be offset by losses in production speed as well as machinery and labor costs. A1694-95.

Adidas also argued that the term “flat knit edges” encompassed edges that were created by *cutting* a flat knit textile (as opposed to edges of a flat knit textile

⁶ Nike’s amendments also distinguished the Glidden reference. There is no dispute that Glidden discloses a circular knit upper and not a flat knit upper. *See* A219-20(¶84)(Frederick) (“[T]he skilled person would know that knitting the unitary upper in a ‘sock-like’ fabrication process would have utilized circular knitting.”).

that are themselves flat knit), A1692-93, that the amended claims were not supported by the written description in the specification, A1688-89, that the amended claims enlarged the scope of the original claims, A1686, and that the amended claims were indefinite. A1691.

Nike filed its reply brief on December 11, 2013. In addition to rebutting Adidas's various arguments with respect to claim construction, written description, enlargement, and definiteness, Nike explained that a person of ordinary skill would not have been motivated to combine Nishida with the Schuessler references because Nishida is directed to creating a more efficient pattern of uppers on a *web* of textile material, which is incompatible with knitting an individual upper *to shape*. A2059-60. Nike also rebutted Dr. Frederick's testimony regarding the benefits of its invention, explaining that Dr. Frederick lacked the requisite knowledge to opine on knitting machine line speed, line maintenance, and amortization calculations. A2060; *see also* A2146-47(45:3-46:10)(Frederick Dep.). Nike further noted that Dr. Frederick was skeptical about the feasibility of "knit to shape" uppers—a factor that counseled against ruling the invention obvious. A2060.

The Board held an oral hearing on March 5, 2014, and issued its final written decision on April 28, 2014. The Board decided most issues in Nike's favor, finding that the disputed terms in the patent (such as "flat knit" and "flat knit

edges”) should be construed to have their ordinary meanings in the art, A11-23, that the amended claims were supported by the written description, A27-31, and that the amended claims were not indefinite. A31-33. Nevertheless, the Board denied Nike’s motion to amend the ’011 patent with substitute claims 47-50 on two grounds.⁷ **First**, it held that the amended claims were obvious over Nishida in combination with the Schuessler references. A36-39. **Second**, it held that Nike was required to demonstrate affirmatively that the claims were patentable over prior art known to Nike but *not* of record, and that Nike had supposedly failed to carry that burden. A34-36.

This appeal followed. A2484-86.

SUMMARY OF THE ARGUMENT

The Board’s denial of Nike’s motion to amend the ’011 patent contains several errors.

First, the Board improperly concluded that the amended claims were obvious in light of three prior art references—Nishida, Schuessler I, and Schuessler II—even though there was no substantial evidence that a person of ordinary skill would have been motivated to modify those references to achieve the claimed invention. To the contrary, those references are directed to fundamentally different and incompatible purposes, and the Board’s finding of a motivation to combine

⁷ The Board granted the portion of Nike’s motion requesting cancellation of claims 1-46. A4.

them is based on improper hindsight. The Board further erred with respect to claim 49, which additionally requires “apertures formed by omitting stitches”; the Board wrongly ruled that Nishida discloses that limitation, even though Adidas’s own expert could not identify any such disclosure in the reference. A1517(150:10-17)(Frederick Dep.).

The Board also erred by failing to consider evidence that Nike submitted regarding the long-felt need for its invention. Because the Board “must always consider such evidence,” its decision must at minimum be vacated and remanded for further proceedings. *In re Sernaker*, 702 F.2d 989, 996 (Fed. Cir. 1983).

Second, the Board failed to apply the governing statute and rules, which impose the burden of proving unpatentability on the ***petitioner***. The Board instead placed the burden on Nike to demonstrate the patentability of its amended claims, and additionally required that Nike demonstrate patentability over prior art ***not of record***, imposing a substantive rule that conflicts with the controlling statutory and regulatory schemes.

The Board’s conclusions are unsupported by the record and contrary to law, and should be reversed or vacated and remanded for further proceedings.

ARGUMENT

I. STANDARD OF REVIEW

“The Patent and Trademark Office (‘PTO’) is governed by the Administrative Procedure Act (‘APA’), and PTO decisions are reviewed under the APA standard.” *In re Chapman*, 595 F.3d 1330, 1336-37 (Fed. Cir. 2010). This Court must “hold unlawful and set aside agency action, findings, and conclusions found to be—(A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law; ... (C) in excess of statutory jurisdiction, authority, or limitations, or short of statutory right; (D) without observance of procedure required by law; [or] (E) unsupported by substantial evidence.” 5 U.S.C. § 706(2). This Court does not defer to the Board’s interpretation of a PTO regulation when it is plainly erroneous or inconsistent with the regulation. *In re Garner*, 508 F.3d 1376, 1378-79 (Fed. Cir. 2007).

Obviousness is a question of law based on underlying facts. *In re Kotzab*, 217 F.3d 1365, 1369 (Fed. Cir. 2000). This Court reviews the Board’s compliance with the governing legal standards and ultimate obviousness conclusion *de novo*, while the Board’s factual findings are reviewed for substantial evidence. 5 U.S.C. § 706(2)(E); *In re Sullivan*, 498 F.3d 1345, 1350 (Fed. Cir. 2007). “Substantial evidence is something less than the weight of the evidence but more than a mere scintilla of evidence. In reviewing the record for substantial evidence, [the Court]

must take into account evidence that both justifies and detracts from the factual determinations.” *Kotzab*, 217 F.3d at 1369 (citations omitted).

II. THE BOARD INCORRECTLY DETERMINED THAT A COMBINATION OF PRIOR ART REFERENCES RENDERS THE AMENDED CLAIMS OBVIOUS.

The Board concluded that Nishida disclosed all of the elements of the amended claims other than “flat knit edges free of surrounding textile structure,” which the Board held was disclosed by the Schuessler references. A36-38. The Board further ruled that a person of ordinary skill in the art would have been motivated to combine Nishida with the Schuessler references. A38-39. As set forth below, the Board’s conclusion is based on unsupported factual findings and is incorrect as a matter of law.

A. There Was No Motivation To Combine Nishida With The Schuessler References.

The Board’s conclusion that a person of ordinary skill would have been motivated to combine Nishida with the Schuessler references in order to achieve the invention of the amended claims was incorrect for two reasons.

First, the Board erred by placing the burden on Nike to demonstrate the patentability of the amended claims over the combination of Nishida and the Schuessler references. *See* A36 (“[W]e also are not persuaded that [Nike] has demonstrated the patentability of the proposed substitute claims over a ground of unpatentability presented by [Adidas], in particular, the ground involving Nishida

and Schuessler I and II.”). That was legal error: Congress has provided that, in an IPR proceeding, “*the petitioner* shall have the burden of proving a proposition of unpatentability by a preponderance of the evidence.” 35 U.S.C. § 316(e). Thus, because the Board failed to place the burden on Adidas as it was required to do, the Board’s decision must, at a minimum, be vacated.

Second, no substantial evidence supports the Board’s finding of a motivation to combine Nishida with the Schuessler references. The Board ruled that the three references are all in the general field of textiles that can be shaped into wearable items and collectively feature the disparate elements of Nike’s amended claims. A38-39. But “a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). Rather, an obviousness finding must be rooted in some rationale supporting a claimed combination, and the analysis leading to the “apparent reason to combine” “should be made explicit.” *Id.*; *see also Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d 1363, 1374 (Fed. Cir. 2008) (“[S]ome kind of motivation *must be shown* from some source [to] understand why a [skilled artisan] would have thought of either combining two or more references or modifying one to achieve the patented method.”). That rationale is absent here.

Nishida is directed to creating a textile with a pattern of multiple uppers on it, each of which can be removed from the larger textile web. A545(1:48-56)(Nishida). The patent purports to be an improvement over German Patent No. 627,878 (“the ’878 patent”), which similarly discloses creating a pattern of uppers within a larger textile web. *Id.*(1:19-47)(Nishida). Nishida explained that the German prior art process was wasteful because the extraneous areas between the uppers consisted of the same valuable textile material used for the uppers themselves. *Id.* Nishida attempts to avoid this waste by using “simple, lightweight and inexpensive material” to form those portions of the web not constituting the layouts for the uppers, and by arranging the uppers in a layout that minimizes the amount of extraneous material. *Id.*(2:20-33)(Nishida). Thus, Nishida is directed specifically to the problem of creating a more efficient *pattern* for use in a “subtractive” process in which textile shapes are to be cut from a larger textile web. A1612(¶111). Nishida bears no relation to the “additive” process of flat knitting a *single* textile to shape in the first instance—a fundamentally different process that was well-known long before Nishida and used, for example, in the Schuessler references, which disclose knitting a cap to shape. *See* A1995-97(Schuessler I); A1998-2001(Schuessler II); A1613(¶112).

The record is devoid of evidence establishing that it would have been obvious to modify the subtractive process of Nishida by combining it with the

additive process disclosed in the Schuessler references. Adidas's expert Dr. Frederick merely opined that "the textile elements of Schuessler I serve the same purpose when combined with Nishida's textile elements, namely to form a three-dimensional wearable item in an efficient and economical way from a knitted two-dimensional textile element." A2012(¶15)(Frederick). That reasoning simply recognizes that the various elements of the amended claims may be found in assorted prior art references; it does not provide a reasoned explanation for combining them. In particular, Dr. Frederick failed to explain why a skilled artisan would be motivated to modify the fundamentally subtractive process of Nishida (creating an improved pattern of removable shapes) with the fundamentally additive process of the Schuessler references (flat knitting a textile directly into the shape of a single hat).

Thus, Dr. Frederick's testimony falls far short of "identify[ing] a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does [to account for the fact that] inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known." *KSR*, 550 U.S. at 418-19; *see also St. Jude Med., Inc. v. Access Closure, Inc.*, 729 F.3d 1369, 1381 (Fed. Cir. 2013) ("Even under our expansive and flexible obviousness analysis, we must guard

against hindsight bias and ex post reasoning.” (citations and internal quotation marks omitted)). Therefore, the Board’s finding of a motivation to combine Nishida with the Schuessler references is not supported by substantial evidence.

B. The Board’s Ruling Regarding Claim 49 Cannot Stand Because Neither Nishida Nor The Schuessler References Disclose An Aperture Formed By Omitting Stitches.

The Board erred in finding claim 49 obvious for an additional reason. As discussed above, the Board found that Nishida disclosed all of the elements of claim 47 other than flat knit edges. A36-38. The Board further found that Nishida disclosed all of the additional limitations of claims 48-50 (which depend from claim 47), and thus that it was appropriate to group all of the proposed claims together for purposes of assessing patentability. A23-26.

Claim 49, however, requires an additional limitation that Nishida lacks: “a plurality of apertures ... *formed by omitting stitches* in the flat knit textile element and positioned in the upper for receiving laces.” A9-10; *see also* A65(10:20-25) (teaching that apertures (such as apertures for receiving laces) may be formed in an upper “by omitting stitches at specific locations”). Nishida does not disclose apertures in the textile element that are formed by omitting stitches; even Adidas’s

expert could not identify such a disclosure. A1517(150:10-17)(Frederick Dep.). The Board's contrary finding is unsupported by substantial evidence.⁸

Indeed, the Board appears to have misunderstood both the requirements of claim 49 and the disclosures of Nishida. *See* A25. Unlike Nike's amended claims, Nishida discloses apertures that may be formed by *piercing* holes into the textile element, with a separate piece of embroidery serving as a stencil to mark the locations on the upper to be pierced:

In the production of web of material 1 or after its production, and optionally after cutting out of layout(s) 2, layout(s) 2 can be provided with an embroidery, especially with an English embroidery (i.e., *the type of embroidery by which a hole pattern is welded and which is commonly used for the sewing of button holes*), of a trademark or another mark or identification on suitable or preferred places.

A546(4:31-38)(Nishida). Thus, as Nike's expert Raymond Tonkel testified, without contradiction, "Nishida contains no description or suggestion of forming [apertures for laces] by omitting stitches in the layout. Thus, it appears such openings were created by an additional manufacturing step, e.g., punching out the openings." A1610(¶107).

Nor would it have been obvious to modify Nishida to include this feature. The *only* evidence in the record on this point is, again, the testimony of Nike's expert, who explained:

⁸ There is no dispute that the Schuessler references do not disclose this claim element. *See* A1698; A1700.

Nishida contains no description or suggestion of forming [openings for laces] by omitting stitches in the upper and positioning them in the upper for receiving laces. Moreover, *there was no motivation or other reason that would have prompted one of ordinary skill in the art at the time of the invention to modify Nishida to include this additional feature* that has been added to substitute dependent claim 49.

A1613(¶113).

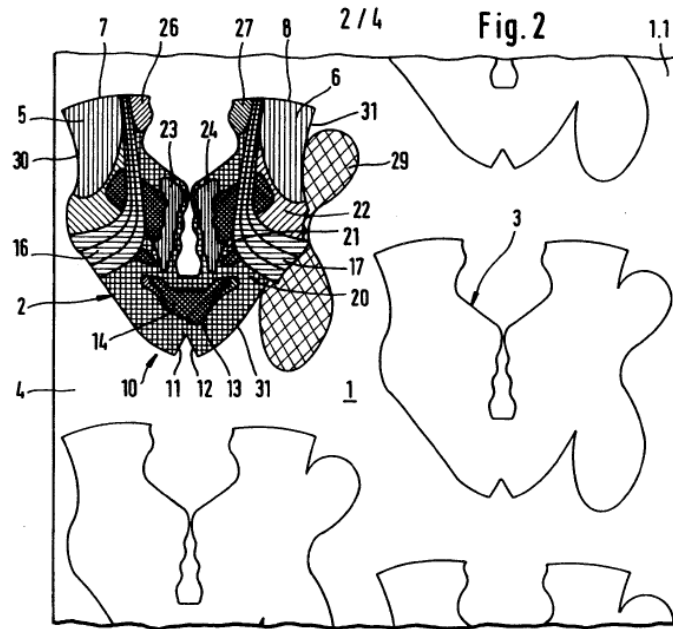
The Board’s conclusion on this point rests on the following sentence: “[w]ith respect to the additional limitations of claim 49, Nishida describes forming lacing areas by knitting.” A25. But Nishida’s “lacing areas” do not contain apertures, let alone apertures formed by omitting stitches, as claim 49 requires. The Board’s misunderstanding of claim 49 as well as the disclosures of Nishida comes through in the balance of its discussion.

First, the Board cited the following passage in Nishida:

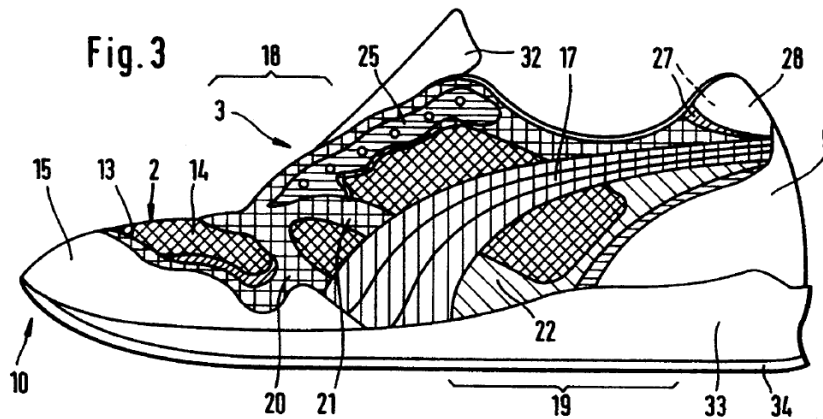
Optionally, in this case, the material can be woven or knitted in two or more layers or can be especially thick or additionally embroidered. Similarly, the lacing areas 23 and 24 can be made dimensionally stable in corresponding manner, especially if, for example, no additional trimmings, such as the lacing strips 25, shown in FIG. 3, are to be applied.

A546(3:66-4:5)(Nishida); *see* A25. This passage, however, simply teaches that the portions of the textile web that serve as lacing areas can be made thicker than other portions of the web, for example by knitting multiple layers or adding a separate piece of embroidery. That is entirely consistent with Nishida’s disclosure that the lacing areas of the textile web would be *punctured* with holes for laces—the

thickening provides stability so that the textile retains its integrity after being punctured. *See* A546(4:31-38)(Nishida). Further, as seen in Figure 2, lacing areas 23 and 24 do not have any apertures. The pattern of uppers (including the lacing areas) is knit into the unbroken textile web, and each upper must be individually cut out:



(A542)(Fig. 2)(Nishida); *see also* A541(Fig. 1)(Nishida). Meanwhile, lacing strips 25 are independent textiles, *i.e.*, they are not part of the textile web depicted in Figure 2 above, but are “additional trimmings” that may be embroidered onto the upper layout. A546(4:3-5, 4:31-38)(Nishida). These separate textiles contain holes which can be used as a stencil to identify the locations on the upper layout to be punctured, as seen in Figure 3:



(A542)(Fig.3)(Nishida); *see also* A546(4:31-38)(Nishida). Thus, the passage cited by the Board simply confirms that Nishida fails to disclose the creation of apertures in the upper by omitting stitches, as required by claim 49. A1613(¶113).

Second, the Board cited to a statement in the '011 patent describing the omission of stitches for another reason, namely to provide air permeability in the textile element used to form the upper. A25. The Board then appeared to conclude that, because Nishida also discusses providing air permeability, it must also disclose providing air permeability by omitting stitches—even though Nishida never discusses forming apertures by omitting stitches. *See id.* However, nothing about Nishida's disclosure of obtaining air permeability in any way teaches the formation of apertures in the textile web layout that is used to create the upper.

Adidas's expert was clear on this point:

Q. Mr. Frederick, I want to direct your attention back to Nishida and ask you, ***does Nishida teach anything about forming apertures in the layout?***

A. Hmm. *I don't recall anything specifically teaching apertures*, but there's certainly a lot of mention of breathability and the need to improve breathability.

A1517(150:10-17)(Frederick Dep.).

It is true that the '011 patent explains that apertures may be formed by omitting stitches, and that apertures may provide air permeability in the knitted textile element. A65(9:57-62, 10:22-25). But that does not indicate that *all* apertures are formed by omitting stitches, nor that *all* air permeability is provided by apertures (let alone apertures formed by omitting stitches). The '011 patent certainly does not suggest that any reference that provides air permeability does so through apertures, much less through apertures formed by omitting stitches.

Nishida does not disclose creating apertures in the textile web by omitting stitches, for purposes of air permeability or otherwise. Rather, it discusses *different* methods of facilitating air permeability:

Since, generally, toe area 14 is designed to be relatively deformably soft or elastic, and optionally, also permeable to air, the web of material 1, in toe area 14, according to the present invention, is correspondingly designed by suitable selection of the weave pattern, knit pattern and/or the material used, such as, for example, Silk or plastic. The type of production can, additionally, insure that the toe area 14 has a good air exchange capability. For example, this can be achieved by a net-like woven or knitted structure.

A546(3:43-52); *see also* A547(6:25-31) (claiming “weaving and knitting types being matched to differing requirements for materials of the shoe upper and sole part of a shoe in relation to properties thereof including at least one of the

properties of absorptivity, air permeability, softness, extensibility, wear resistance, and appearance”). Nishida’s disclosure of air permeability thus does not disclose the creation of apertures, let alone apertures formed by omitting stitches.

Third, the Board cited to its discussion of claim 26 in its Decision on Institution. A25. There, however, the Board simply found that Nishida disclosed the claim 26 element “an aperture in the textile element” by teaching the use of a “net-like” structure to increase air permeability in the toe area. A1171-72; *see also* A546(3:43-52). That discussion is irrelevant to claim 49, because—once again—Nishida’s disclosure of a net-like structure to increase air permeability does not disclose the creation of apertures *by omitting stitches*. A1517(150:10-17)(Frederick Dep.).

Finally, the Board cited to Adidas’s claim chart for claim 49. That chart, however, simply quotes the language of claim 49 itself and refers back to the evidence that Adidas relied on to argue that Nishida anticipated claim 19, which contains the same “an aperture in the textile element” limitation found in claim 26. *See* A1700; A191-92. As discussed above, that language does not teach claim 49’s limitation of a plurality of apertures created by omitting stitches. Adidas’s expert did not address this limitation in his expert report, and he could not identify any passage in Nishida disclosing it. *See* A2008-09; A1517(150:10-17)(Frederick Dep.).

In sum, the Board’s finding that Nishida discloses a plurality of apertures formed by omitting stitches is not supported by substantial evidence. The Board’s decision as to claim 49 should therefore be reversed or at the very least vacated and remanded.

C. The Board Failed To Consider Objective Indicia Of Nonobviousness.

The Board further erred by failing to consider Nike’s evidence of objective indicia of nonobviousness. As this Court has long held:

[E]vidence rising out of the so-called “secondary considerations” ***must always when present be considered en route to a determination of obviousness.*** Indeed, evidence of secondary considerations may often be the most probative and cogent evidence in the record. It may often establish that an invention appearing to have been obvious in light of the prior art was not.

Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 1538 (Fed. Cir. 1983) (citations omitted); *see also In re Huai-Hung Kao*, 639 F.3d 1057, 1067 (Fed. Cir. 2011)

(“[W]hen secondary considerations are present, though they are not always dispositive, ***it is error not to consider them.***”); *Sullivan*, 498 F.3d at 1351 (vacating and remanding Board decision because it failed to consider evidence of objective indicia); *Sernaker*, 702 F.2d at 996 (“If ... a patent applicant properly presents evidence relating to these secondary considerations, the board must ***always*** consider such evidence in connection with the determination of obviousness.”).

Here, Nike presented the Board with substantial evidence of a long-felt need for its invention. *See* A1239-40; *cf. Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d 1340, 1353-54 (Fed. Cir. 2012) (solving a long-felt need is an objective indication of nonobviousness). Nike’s expert explained that there was a long-felt need to reduce material waste during the manufacture of footwear uppers. A1647-48(¶178). Nishida, moreover, confirms that there was a long-felt need to minimize this “cutting waste.” A545(2:11-33)(Nishida). Unlike Nishida, however, Nike’s invention solves this long-felt problem by eliminating the need to cut a textile element from a larger textile structure, thereby eliminating both the “cutting waste” and the additional cutting step. A64(7:5-12); A1647-48(¶178).

Tellingly, Adidas never disputed that there was a long-felt need to reduce material waste and to reduce the number of steps in the manufacturing process. *See* 1694-95. Nor did Adidas or its expert dispute that Nike’s FLYKNIT technology was a “quantum leap for flat knitting.” A2141-42(40:22-41:3)(Frederick Dep.); *see also* A2026-34.

To the contrary, Adidas’s expert initially failed to address objective indicia of nonobviousness, *see* A1411-12(44:4-45:25)(Frederick Dep.), and when he submitted a supplemental declaration to address the issue, he ***conceded*** that there was a long-felt need to reduce waste and improve yields in the manufacture of shoe

uppers. A2021(¶36)(Frederick); A2023(¶41)(Frederick). Adidas's expert argued that the evidence of long-felt need should nevertheless be ignored, because he believed that the gains provided by Nike's invention would be offset by losses in production speed as well as machinery and labor costs. A2013-24(¶¶17-45)(Frederick). Dr. Frederick, however, lacked the requisite knowledge to conduct such a cost-benefit analysis. A2060; *see also* A2146-47(45:3-46:10)(Frederick Dep.). And in any event, whether there may be incidental costs associated with Nike's invention is irrelevant to whether there was a long-felt need for the benefits it provides, *i.e.*, reducing material waste and increasing the efficiency of the manufacturing process. Indeed, to the extent Dr. Frederick's testimony is relevant at all, it is evidence of skepticism and teaching away from the claimed invention, which are further indicia of nonobviousness. *See, e.g., Monarch Knitting Mach. Corp. v. Sulzer Morat GmbH*, 139 F.3d 877, 885 (Fed. Cir. 1998) (noting that the "presence of either [skepticism or teaching away] gives insight into the question of obviousness").

The Board failed to address these objective indicia of nonobviousness in any way. *See* A36-39. Thus, at a minimum, the Board's decision must be vacated and remanded for the Board to consider the evidence of objective indicia of nonobviousness in the first instance. *See Sullivan*, 498 F.3d at 1351.

III. THE BOARD’S DENIAL OF NIKE’S MOTION TO AMEND WAS CONTRARY TO LAW.

The Board alternatively denied Nike’s motion to amend because Nike supposedly failed to demonstrate the patentability of its amended claims over prior art *not* of record. A34-36. Neither the statute nor the PTO’s rules imposed such a burden on Nike, and the Board’s effort to impose such a burden on patent holders is contrary to law.⁹

Congress has provided that a patent owner in an *inter partes* review may file a motion to amend the patent to “propose a reasonable number of substitute claims” “[f]or each challenged claim.” 35 U.S.C. § 316(d)(1)(B). “An amendment under this subsection may not enlarge the scope of the claims of the patent or introduce new matter.” 35 U.S.C. § 316(d)(3).

Under the PTO’s regulations, a motion to amend must:

include a claim listing, show the changes clearly, and set forth: (1) The support in the original disclosure of the patent for each claim that is added or amended; and (2) The support in an earlier-filed disclosure for each claim for which benefit of the filing date of the earlier filed disclosure is sought.

⁹ The Board also criticized Nike’s motion for failing to discuss “the level of ordinary skill in the art, explaining the basic knowledge and skill set already possessed by one of ordinary skill in the art, with respect to the new claim features.” A34-35. But Nike addressed that issue in its motion and its expert’s supporting declaration. *See, e.g.*, A1228; A1231-40; A1585-98(¶¶60, 68, 71, 74, 78, 83, 87). Further, there was no dispute concerning the level of skill in the art. *See* A138-39(¶¶8-10)(Frederick); A1850-51(¶¶16-17)(Adanur); A1581(¶¶52-53)(Tonkel).

37 C.F.R. § 42.121(b). The PTO's rules further state that there are two circumstances under which a motion to amend may be denied:

(2) Scope. A motion to amend may be denied where: (i) The amendment does not respond to a ground of unpatentability involved in the trial; or (ii) The amendment seeks to enlarge the scope of the claims of the patent or introduce new subject matter.

37 C.F.R. § 42.121(a)(2).

Nike's motion to amend satisfied each of the statutory and regulatory requirements. Nike proposed one substitute claim for original claim 16, two substitute claims for original claim 19,¹⁰ and one substitute claim for original claim 20. A1226-27. Nike's motion annotated its proposed claims to reflect the amendments to the original claims. *Id.* The proposed claims contain additional limitations that narrow the scope of the original claims; they accordingly do not enlarge the scope of any claims. A27. The proposed claims are supported by the written description. A27-31. And the proposed claims respond to the grounds of unpatentability identified by the Board in its Decision on Institution. A1231-40.

¹⁰ There is a presumption that only one substitute claim should be proposed to replace a challenged claim, but that presumption may be rebutted by a demonstration that multiple proposed substitute claims are patentably distinct from each other. *See* 37 C.F.R. § 42.121(a)(3); A24. Nike demonstrated that claims 48 and 49 are patentably distinct because they each add a substantially different limitation to original claim 19. A1240; A1644-47(¶¶169-76). Although the Board incorrectly found that the two claims were not patentably distinct, it did not deny the motion to amend on that basis. A25-26.

The Board, however, denied Nike's motion because it found that Nike had failed to carry its supposed burden to show that its proposed claims were patentable over prior art not of record. This was improper for three reasons.

First, neither Congress in the statute nor the PTO in its rules has designated such a basis for denying a motion to amend. *See Align Tech., Inc. v. ITC*, 771 F.3d 1317, 1322 (Fed. Cir. 2014) (vacating decision "[b]ecause the Commission circumvented its own rules"); *United States v. UPS Customhouse Brokerage, Inc.*, 575 F.3d 1376, 1382 (Fed. Cir. 2009) ("An agency must follow its own regulations."). Instead, the Board relied not on a statute or regulation, but on one of its own interim decisions, in which it created a new rule that in a motion to amend, a patent owner must "persuade the Board that the proposed substitute claim is patentable over the prior art of record, **and over prior art not of record but known to the patent owner.**" *Idle Free Sys., Inc. v. Bergstrom, Inc.*, No. IPR2012-00027, 2013 WL 5947697, at *4 (P.T.A.B. June 11, 2013).

The Board's requirement has no basis in, and is inconsistent with, the PTO's rules. As described above, the rules create a framework in which a patent owner can **narrow** an issued claim in order to address a finding by the Board that the issued claim was likely invalid over certain prior art. Consistent with that framework, the motion to amend may properly be denied if the amendment does not narrow the claim, or if it does not respond to a ground of patentability involved

in the IPR. The Board’s *Idle Free* decision purported to impose an additional burden, unrelated to the grounds for rejection that prompted the amendment, and unsupported by the PTO rules.

Second, to the extent the PTO wished to impose a substantive burden of proof of the sort decreed in *Idle Free*, it was required to do so via formal rulemaking. Under the APA, agencies such as the PTO must give notice of proposed rulemaking and provide for a comment period before promulgating “substantive” rules. *See* 5 U.S.C. § 553; *Lincoln v. Vigil*, 508 U.S. 182, 195-96 (1993); *Animal Legal Def. Fund v. Quigg*, 932 F.2d 920, 927 (Fed. Cir. 1991). A rule is “substantive” if it “effects a change in existing law or policy which affects individual rights and obligations.” *Animal Legal Def. Fund*, 932 F.2d at 927 (citations omitted). The Board’s imposition of a burden of proving nonobviousness on the patent owner—over both the prior art of record and additional prior art not of record—plainly affects individual rights and obligations and thus constitutes a “substantive” rule. *See, e.g., Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843, 849 (2014) (“[W]e have held that the burden of proof is a substantive aspect of a claim.” (internal quotation marks omitted)); *Director, Office of Workers’ Compensation Programs v. Greenwich Collieries*, 512 U.S. 267, 271 (1994) (“[T]he assignment of the burden of proof is a rule of substantive law.”); *Garrett v. Moore-McCormack Co.*, 317 U.S. 239, 249

(1942) (the burden of proof “cannot be considered a mere incident of a form of procedure”); *cf. Christensen v. Harris County*, 529 U.S. 576, 588 (2000) (“To defer to the agency’s position would be to permit the agency, under the guise of interpreting a regulation, to create de facto a new regulation.”).

Finally, even if the Board had the power to impose a burden of proof through adjudication rather than rulemaking (though it plainly did not), the Board’s *Idle Free* rule conflicts with the controlling statute and therefore cannot stand. Congress mandated that “[i]n an inter partes review instituted under this chapter, ***the petitioner*** shall have the burden of proving a proposition of unpatentability by a preponderance of the evidence.” 35 U.S.C. § 316(e). By its plain terms, this statutory requirement applies to ***any*** proposition of unpatentability that arises in an IPR.

The Board, however, took it upon itself to shift that burden with respect to motions to amend, stating that “[t]he burden is not on the petitioner to show unpatentability, but on the patent owner to show patentable distinction over the prior art of record and also prior art known to the patent owner.” *Idle Free*, 2013 WL 5947697, at *4. The *Idle Free* rule thus conflicts with Section 316(e) and would therefore be improper even had it been duly promulgated as a regulation. *See, e.g., United States v. Mead Corp.*, 533 U.S. 218, 227 (2001) (agency regulation may not be “manifestly contrary to the statute”); *GHS Health Maint.*

Org., Inc. v. United States, 536 F.3d 1293, 1297 (Fed. Cir. 2008) (“When a regulation directly contradicts a statute, the regulation must yield.”).

CONCLUSION

The Board’s decision denying Nike’s motion to amend the ’011 patent should be reversed or, alternatively, vacated and remanded for further proceedings.

Respectfully submitted,

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ADDENDUM

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TAB 1

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Paper 60
Entered: April 28, 2014

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

adidas AG
Petitioner

v.

NIKE, Inc.
Patent Owner

Case IPR2013-00067
Patent 7,347,011 B2

Before JOSIAH C. COCKS, MICHAEL J. FITZPATRICK, and
JAMES B. ARPIN, *Administrative Patent Judges*.

ARPIN, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

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I. INTRODUCTION

On December 10, 2012, adidas AG (“Petitioner”) filed a revised petition (Paper 7) challenging claims 1-46 of Patent No. US 7,347,011 B2 (Ex. 1002, “the ’011 Patent”). Petitioner relied upon the following prior art references:

Glidden	US 2,147,197	Feb. 14, 1939	(Ex. 1007)
McDonald	US 2,314,098	Mar. 16, 1943	(Ex. 1008)
Whiting	US 2,641,004	June 9, 1953	(Ex. 1009)
Shiomura	US 4,785,558	Nov. 22, 1988	(Ex. 1011)
Curley	WO 90/03744	Apr. 19, 1990	(Ex. 1010)
Osamu	JP H06-113905	Apr. 26, 1994	(Ex. 1006)
Nishida	US 5,345,638	Sep. 13, 1994	(Ex. 1005)

On February 28, 2013, Nike, Inc. (“Patent Owner”) filed a patent owner preliminary response (Paper 12). In a decision to institute (Paper 18) issued May 17, 2013, we¹ instituted *inter partes* review of all of the challenged claims as to the following grounds for review:

- claims 1-16, 19-34, 36, and 39-46 as anticipated by Nishida;
- claims 16-18 as anticipated by Glidden;
- claims 1-16 and 19-46 as obvious over Nishida; and
- claims 16-18 as obvious over Glidden.

On August 18, 2013, Patent Owner filed a motion to amend (Paper 31), accompanied by certain testimony of Patent Owner’s expert, Dr. Tonkel

¹ After issuance of the decision to institute, Judge Cocks replaced Judge Tierney as the administrative patent judge managing this proceeding. Paper 30.

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(Ex. 2010), but elected not to file a patent owner response. In the scheduling order (Paper 19, 2-3), Patent Owner had been cautioned that any arguments for patentability not raised in the patent owner response are deemed waived. On November 12, 2013, Petitioner filed an opposition (Paper 37) to the motion to amend, including three additional exhibits: declaration of Sabit Adanur Ph.D. (Ex. 1016) and Patent Nos. US 2,178,941 (Ex. 1020, “Schuessler I”) and US 2,150,730 (Ex. 1021, “Schuessler II”). On December 11, 2013, Patent Owner filed a reply (Paper 44) to Petitioner’s opposition to the motion to amend.

On January 7, 2014, Petitioner filed a motion to exclude evidence (Paper 49). Specifically, Petitioner moved to exclude (1) certain testimony elicited on cross-examination of Petitioner’s expert, Dr. Frederick (Ex. 2009 (deposition testimony of Dr. Frederick)), as allegedly beyond the scope of Dr. Frederick’s direct testimony (Ex. 1001 (declaration of Dr. Frederick)); and (2) certain testimony of Patent Owner’s expert, Dr. Tonkel, which allegedly relied on the challenged, cross-examination testimony of Dr. Frederick. On January 21, 2014, Patent Owner filed Patent Owner’s opposition (Paper 51) to Petitioner’s motion to exclude evidence; and, on January 28, 2014, Petitioner filed Petitioner’s reply (Paper 54) to Patent Owner’s opposition to Petitioner’s motion to exclude evidence.

Both parties requested oral argument. Papers 47 and 48. In the trial hearing order (Paper 50), we gave each party thirty (30) minutes to argue its case. Because Patent Owner did not file a patent owner response, we ordered (1) that the parties would not present arguments regarding whether

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original claims 1-46 are unpatentable based on the instituted grounds and (2) that Patent Owner, rather than Petitioner, would argue first. Paper 50, 2. The oral hearing was conducted on February 10, 2014.²

We have jurisdiction under 35 U.S.C. § 6(c). This final written decision is entered pursuant to 35 U.S.C. § 318(a).

For the reasons that follow, the portion of Patent Owner's motion to amend requesting cancellation of claims 1-46³ is *granted*; however, the portion of the motion requesting entry of substitute claims 47-50 is *denied*.

Petitioner's motion to exclude evidence is *dismissed* as moot.

A. Related Proceedings

Petitioner does not identify related proceedings. Paper 7, 1. Patent Owner identifies three related patents, identified by Patent Nos. US 7,814,598 B2; US 8,042,288 B2, and US 8,266,749 B2; and one related U.S. patent application, identified by U.S. Patent Application No. 13/413,233. Paper 9, 2.

B. The '011 Patent

The '011 Patent relates to articles of footwear having a textile "upper." Ex. 1002, col. 1, ll. 7-10. In particular, the patent describes articles of footwear having an upper incorporating a knitted textile element and having a sole structure secured to the upper. *Id.* at col. 3, ll. 20-47.

² A transcript of the hearing is included in the record as Paper 59.

³ See Paper 31, 1.

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Conventional articles of athletic footwear may include two primary elements: an upper and a sole structure. *Id.* at col. 1, ll. 12-15. The upper may form a void on the interior of the footwear for receiving a wearer's foot, and the upper may extend over the instep and toe areas, along the medial and lateral sides, and around the heel area of the wearer's foot. *Id.* at ll. 30-35. The upper may be formed of multiple layers of materials, which may be selected for properties of wear resistance, flexibility, and air permeability. *Id.* at ll. 43-50. Thus, different areas of the exterior layer of the upper may be formed of different materials with differing properties. *Id.* at ll. 51-60. In that regard, the '011 Patent explains that:

A textile may be defined as any manufacture from fibers, filaments, or yarns characterized by flexibility, fineness, and a high ratio of length to thickness. *Textiles generally fall into two categories.* The first category includes textiles produced directly from webs of filaments or fibers by randomly interlocking to construct non-woven fabrics and felts. The second category includes textiles formed through a mechanical manipulation of yarn, thereby producing a woven fabric, for example.

Id. at col. 2, ll. 6-14 (emphasis added). Techniques for the mechanical manipulation of yarn into a textile include weaving (e.g., producing a woven material) and knitting (e.g., producing a knitted material). *Id.* at ll. 36-46. Further, textiles for uppers may be formed of weft or warp, woven or knitted materials. *Id.* at ll. 40-41; *see also id.* at col. 3, ll. 30-32 (describing weft knitted and warp knitted "textile elements").

Figure 8 of the '011 Patent is reproduced below.

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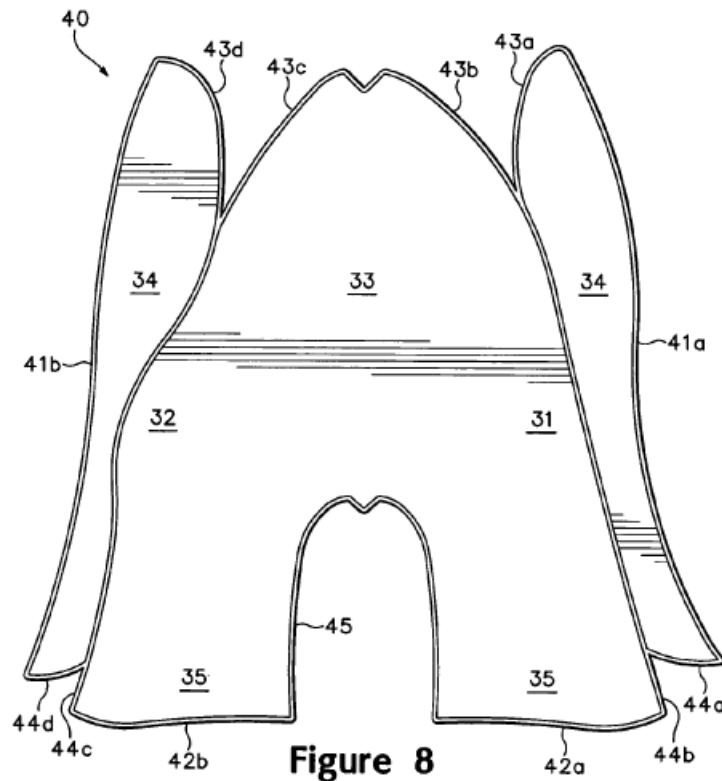


Figure 8 illustrates an embodiment of an upper according to the '011 Patent. *Id.* at col. 5, l. 58-col. 6, l. 65. Textile element 40 is a single material element with a unitary (i.e., one-piece) construction. *Id.* at col. 5, ll. 38-41; *see also id.* at figs. 10 (depicting textile element 40') and 11 (depicting textile element 40"). Consequently, textile element 40 is configured, such that portions of the textile element are not joined together with seams or other connections. *Id.* at col. 5, ll. 38-41; col. 6, ll. 41-46. Edges 41a-44d, which are *free* in Figure 8, are joined together as shown in Figures 3-5 to form seams 51-54, thereby forming at least a portion of a void for receiving the foot. In contrast, lateral region 31, medial region 32, instep

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region 33, lower regions 34, and heel regions 35 together have a unitary construction without seams (*id.* at col. 5, ll. 44-57; col. 6, ll. 47-50).

Figure 11 of the '011 Patent is reproduced below.

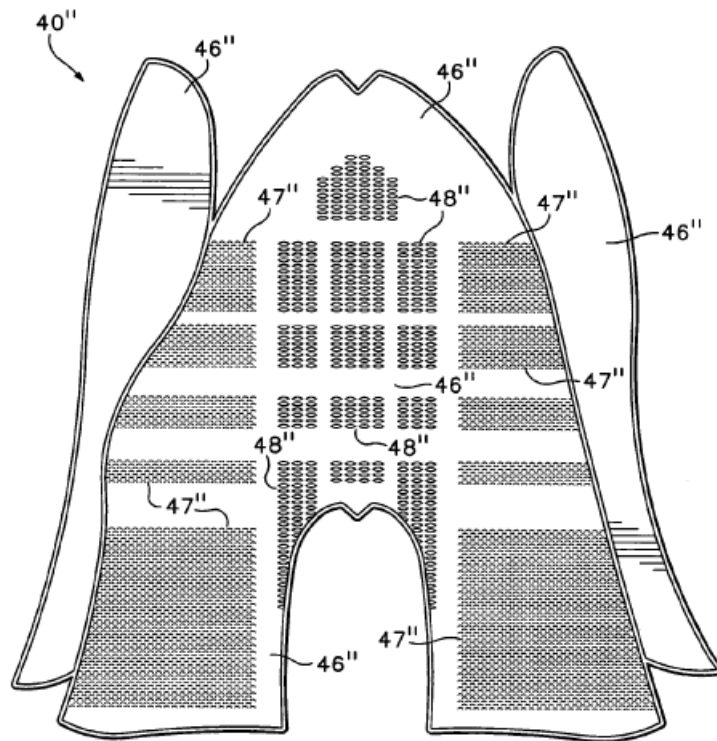


Figure 11

Figure 11 illustrates another embodiment of an upper according to the '011 Patent. *Id.* at col. 9, l. 36-col. 10, l. 14. Textile element 40'' includes three different areas with three different textures. *Id.* at col. 9, ll. 38-39. First texture 46'' is generally smooth and extends in strips across lateral region 31, medial region 32, and instep region 33 of the upper. *Id.* at ll. 39-42. In addition, textile element 40'' includes second texture 47'' and third texture 48''. *Id.* at ll. 42-46. Moreover, the '011 Patent describes that:

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The different textures 46"-48" are formed *by merely varying the type of stitch formed* by the wide-tube circular knitting machine at each location of textile element 40". Textures 46"-48" may exhibit aesthetic differences, or the differences may be structural. *For example, the degree of stretch in areas with textures 46"-48" may be different, or the wear resistance of the areas may vary depending upon the stitch utilized.* The air-permeability of textile element 40" may also vary in the different areas.

Id. at ll. 46-54 (emphases added). Similarly, the type of yarn used in different areas may impart different properties to each area. *Id.* at col. 9, l. 65-col. 10, l. 14. Thus, the textures and properties of different areas of the upper may be varied by altering the stitching or yarn used in those areas.

C. Status of the Claims

Of the challenged claims, claims 1, 16, 24, 36, and 44 are independent. Independent claims 1, 24, and 36 recite similar limitations describing the formation of a void to receive the foot, and independent claims 16 and 44 recite similar limitations describing the unitary construction of the textile element. As to the dependent claims, claims 2-15 depend from claim 1, claims 17-23 depend from claim 16, claims 25-35 depend from claim 24, claims 37-43 depend from claim 36, and claims 45 and 46 depend from claim 44. In its motion to amend, Patent Owner states that "[i]ssued claims 1-46 are cancelled" (Paper 31, 1), and proposes four (4) substitute claims, claims 47-50, based on original claims 16, 19, and 20 (*id.*

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at 1-2) . The substitute claims are reproduced below:⁴

Claim 47. (Substitute for independent claim 16) An article of footwear comprising
an upper incorporating a [weft-knitted] flat knit textile element, the flat knit textile element

(1) having flat knit edges free of surrounding textile structure such that the flat knit edges are not surrounded by textile structure from which the textile element must be removed, some of the flat knit edges joined together to form an ankle opening in the upper for receiving a foot, the ankle opening having an edge comprised of one of the flat knit edges; and

(2) having a first area and a second area with a unitary construction, the first area being formed of a first stitch configuration, and the second area being formed of a second stitch configuration that is different from the first stitch configuration to impart varying properties to the textile element; and
a sole structure secured to the upper.

Claim 48. (Substitute for dependent claim 19) The article of footwear recited in claim [16] 47, wherein at least one of the first stitch configuration and the second stitch configuration forms an aperture in the [weft-knitted] flat knit textile element and the joined edges shape the flat knit textile element to form a lateral region, a medial region, an instep region and a heel region of the upper.

Claim 49. (Second substitute for dependent claim 19) The article of footwear recited in claim [16] 47, wherein at least one of the first stitch configuration and the second stitch configuration forms [an aperture] a plurality of apertures in the

⁴ Subject matter deleted from original claims 16, 19, and 20 is enclosed by brackets; subject matter added to those claims is underlined.

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[weft-knitted] flat knit textile element, the apertures formed by omitting stitches in the flat knit textile element and positioned in the upper for receiving laces.

Claim 50. (Substitute for dependent claim 20) The article of footwear recited in claim [16] 47, wherein the [weft-knitted] flat knit textile element is one of an exterior layer, an intermediate layer, and an interior layer of the upper, and the joined edges shape the flat knit textile element to form a lateral region, a medial region, an instep region and a heel region of the upper.

Paper 31, 1-2. Thus, Patent Owner proposes amending original claim 16 to recite one of two sub-types of a *weft-knitted* textile element, namely a *flat knit* textile element. Paper 31, 1. Further, substitute claim 47 recites a negative limitation regarding the flat knit edges in terms of their method of manufacture. *See* Paper 37, 4; Paper 59, 20-21 and 23-25. Specifically, the “flat knit edges” are themselves flat knit and *not* cut from a flat knit textile. Paper 37, 9. Thus, the upper is recited as “having flat knit edges *free of surrounding textile structure* such that the flat knit edges *are not surrounded by textile structure* from which the textile element must be removed” (emphases added). Finally, some of the “flat knit edges” of the upper are joined to form an ankle opening. *Id.* at 10.

II. DISCUSSION

Because Patent Owner did not file a response to the petition, we focus our discussion on Patent Owner’s motion to amend. As noted above, in the motion to amend, Patent Owner requests the cancellation of claims 1-46 and

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the entry of one independent substitute claim, claim 47, and three dependent substitute claims, claims 48-50. Paper 31, 1-2. In support of its motion, Patent Owner filed a declaration of Dr. Tonkel (Ex. 2010).

An *inter partes* review is more adjudicatory than examinational, in nature. *See Abbott Labs. v. Cordis Corp.*, 710 F.3d 1318, 1326 (Fed. Cir. 2013). A *motion* to amend in an *inter partes* review is not itself an amendment. As the moving party, Patent Owner bears the burden of establishing that it is entitled to the relief requested. 37 C.F.R. § 42.20(c). Thus, Patent Owner's proposed substitute claims are not entered automatically, but may be entered upon Patent Owner's having demonstrated the patentability of the substitute claims.

A. Claim Construction

Claim construction is an important step in a patentability determination. *Medichem, S.A. v. Rolabo, S.L.*, 353 F.3d 928, 933 (Fed. Cir. 2003) ("Both anticipation under § 102 and obviousness under § 103 are two-step inquiries. The first step in both analyses is a proper construction of the claims. . . . The second step in the analyses requires a comparison of the properly construed claim to the prior art." (internal citations omitted)). Thus, a motion to amend must identify how the proposed substitute claims are to be construed, especially when the proposed substitute claims introduce new claim terms or features. *See Research in Motion Corp. v. MobileMedia Ideas LLC*, IPR2013-00016, Paper 32, 6. The motion to amend also must explain how the construed claim is distinguishable over the art.

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Neither Patent Owner nor Petitioner challenges our interpretation of certain terms of claim 16, as set forth in the decision to institute, which terms also appear in substitute claims 47-50. Paper 18, 10-17. The interpretations of those terms are adopted for purposes of this final decision. In particular, in the decision to institute, we construed expressly the claim terms: a “weft-knitted textile element,” a “flat-knitted textile element,” and “unitary construction.” Paper 18, 11-15. Although the original claims are no longer at issue, the interpretation of terms in the decision to institute is relevant to the interpretation of those terms in the substitute claims.

1. A Single Type of Textile

Independent claims 1, 24, and 36 recite that a textile element incorporates “a single type of textile.” In its petition, Petitioner pointed out that “[t]extile element 40 is primarily formed from one or more yarns that are mechanically-manipulated through either an interweaving, intertwining and twisting, or interlooping process.” Paper 7, 10 (quoting ’011 Patent, col. 6, ll. 51-54). “A single type of textile” is not defined expressly in the Specification of the ’011 Patent. Nevertheless, we noted that a pertinent definition of the term “textile” is “any cloth or goods produced by weaving, knitting, or felting.” RANDOM HOUSE WEBSTER’S COLLEGE DICTIONARY 1351 (2nd Random House ed. 1996) (Ex. 3001); *cf.* Ex. 1002, col. 2, ll. 6-14 (defining “textiles”). In addition, the term “textile” is defined more broadly as “[a] material made of natural or artificial fibers and used for the manufacture of items such as clothing or furniture fittings.” MCGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS 1911 (4th ed. 1989)

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(Ex. 3002). As noted above, the '011 Patent states that textiles generally fall into two categories: fabrics formed of randomly locked filaments or fibers, such as felts; and fabrics formed of mechanically manipulated yarn, such as woven or knitted fabrics. Ex. 1002, col. 2, ll. 9-14.

The '011 Patent describes various techniques for mechanically manipulating yarn into woven fabrics or textiles, including interweaving (e.g., weaving), intertwining and twisting (e.g., braiding and knotting), and interlooping (e.g., knitting). *Id.* at ll. 36-46. In the decision to institute, we noted that claim 16 recites that the “textile element” is “knitted” and, in particular, “weft-knitted.” Paper 18, 11-13.

2. Weft-Knitted Textile Element and Flat-Knitted Textile Element

According to Patent Owner, substitute claim 47 incorporates the limitations of challenged, independent claim 16. Paper 31, 1. In its petition, Petitioner argued that the terms “weft-knitted” and “flat-knitted” are well-known in the art. Paper 7, 10. We agreed.

As noted above, the Specification of the '011 Patent describes that various textile types (e.g., weft knitting textiles) and sub-types (e.g., circular and flat knitted) may be used to manufacture textile elements for incorporation into the uppers of the claimed articles of footwear. Ex. 1002, col. 6, l. 66-col. 7, l. 10. In the “Detailed Description of the Invention” portion of the Specification, the '011 Patent further describes that:

A variety of mechanical processes have been developed to manufacture a textile. *In general, the mechanical processes may be classified as either warp knitting or weft knitting.* With regard to warp knitting, various specific *sub-types* that may be

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utilized to manufacture a textile include tricot, raschel, and double needle-bar raschel (which further includes jacquard double needle-bar raschel). *With regard to weft knitting, various specific sub-types that may be utilized to manufacture a textile include circular knitting and flat knitting.* Various types of circular knitting include sock knitting (narrow tube), body garment (seamless or wide tube), and jacquard.

Id. at col. 6, l. 66-col. 7, l. 10 (emphases added).

Although the '011 Patent does not include a definition of either the term “weft knitting” or “warp knitting,” a pertinent definition of “weft knitting” is “[a] knitting process in which *a continuous yarn* is carried in *crosswise rows*.” MCGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS at 2054 (Ex. 3002; emphases added); *see also* Ex. 1001 ¶ 56 (reproducing H. Eberle et al., CLOTHING TECHNOLOGY, Sec. 3.3.1 (3rd English ed. 2002) (weft knitted fabric “[m]ay be made from a single yarn”)). By comparison, a pertinent definition of the term “warp knitting” is “[a] knitting process in which *a group of yarns form rows running lengthwise* by an interlocking process.” MCGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS at 2045 (Ex. 3002; emphasis added). Similarly, flat knitting is described in the '011 Patent as a sub-type of weft knitting, in which the textile is knit as a sheet or flat piece of textile (Ex. 1002, col. 7, ll. 5-8), in contrast to, for example, circular knitting, which is another sub-type of weft knitting (*see* Ex. 1002, fig. 9).

In its opposition to the motion to amend, Petitioner argues that, although flat knitting may be a sub-type of weft knitting, flat knitting is broader than that and describes any “knitted textile that is knit in a flat

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form,” and necessarily includes other types of knitted textiles, including warp knit textiles. Paper 37, 1-2. In the context of this Specification, we are not persuaded that flat knitting should be construed so broadly.

In construing the term “flat knitting,” we apply the broadest reasonable interpretation of the words in their ordinary usage, as those words would be understood by one of ordinary skill in the art, taking into account any definitions supplied by the Specification. *See In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997). The Specification of the ’011 Patent expressly describes flat knitting as a *sub-type* of weft knitting. Ex. 1002, col. 7, ll. 5-8. Ultimately, “[t]he construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be . . . the correct construction.” *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998).

Further, Patent Owner presents evidence that a person of ordinary skill in the art would understand flat knitting to describe a sub-type of weft knitting. Paper 44, 1 (quoting a textile dictionary (Ex. 2011, 6) to state that “the trade uses the term flat knit fabric to refer to weft knit fabrics made on a flat machine, rather than warp-knit fabrics”); *see also* Ex 2017, 5; Ex. 2018, 6. Despite its argument, Petitioner identifies no portion of the Specification of the ’011 Patent that describes flat knitting with respect to warp knitting or any other type of knitting, beyond weft-knitting. *See* Paper 37, 2-3. In addition, *before* the filing date of the motion to amend, Dr. Frederick, Petitioner’s expert, testified that “[f]lat knitting would be another type of weft knitting that would involve an end result that was . . . on a curved

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surface, but more or less flat.” Ex. 2009, 89, ll. 6-11. Therefore, we determine that the term “weft knitting” describes a type of knitting in which a continuous yarn is carried in crosswise rows, and we construe the term “flat knit” to recite a sub-type of weft knitting, in which the weft knit textile is produced as a sheet of more or less flat material.⁵

3. *The Textile Element Having First and Second Areas*

In its petition, Petitioner argued that the phrase “the textile element *having a first area and a second area* with a unitary construction” in original claim 16 should be construed to require a textile element (1) having a unitary construction *and* (2) having a first area and a second area, each area having stitching that imparts different properties to its area. Paper 7, 11-12 (emphasis added). Thus, Petitioner argued that the textile element has a *single* unitary construction containing different areas. Petitioner also argued, however, that separate unitary constructions in *different* areas of the textile element would be inconsistent with the invention, as described in the Specification. *Id.* at 12.

The ’011 Patent expressly defines the term “unitary construction.” Ex. 1002, col. 6, ll. 41-46. The ’011 Patent states that, “[a]s defined for purposes of the present invention, unitary construction is intended to express a configuration wherein portions of a textile element are not joined together

⁵ Although not dispositive for purposes of our construction of this term, we are mindful that Patent Owner proposed the replacement of “weft-knitted” with “flat knit” in original claim 16 in order to narrow the scope of substitute claim 47 in a manner consistent with the language of the Specification.

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by seams or other connections, *as depicted with textile element 40 in FIG. 8.*” *Id.* (emphases added); *see* Paper 18, 10-11 (citing *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994)). Consequently, we construe the phrase “the textile element having a first area and a second area with a unitary construction” to require a textile element having a unitary construction *and* having a first area and a second area.

4. Flat Knit Edges Free Of Surrounding Textile Structure Such That The Flat Knit Edges Are Not Surrounded By Textile Structure From Which The Textile Element Must Be Removed

Patent Owner proposes adding these limitations to original claim 16 in substitute claim 47 in order to distinguish the substitute claims over the references cited by Petitioner in its petition and over other references known to Patent Owner. Paper 31, 3. The Specification of the ’011 Patent describes a textile element with “edges” (*e.g.*, Ex. 1002, Abstract; col. 6, ll. 47-50 (describing edges 41a-44d of textile element 40)), and such edges were recited in the challenged claims (*see id.* at Claims 1, 3, 4, 6, 24, 36, and 39-41). In substitute claim 47, however, Patent Owner proposes to limit further those edges as (1) “flat knit” edges and (2) edges “free of surrounding textile structure such that the flat knit edges are not surrounded by textile structure from which the textile element must be removed.” We address the construction of each of these limitations in turn.

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a. Flat Knit Edges

Patent Owner argues that “flat knit edges” are edges that are themselves “flat knit,” as opposed to edges that are formed by cutting a textile element from a textile structure that has been created by flat knitting. Paper 31, 7-8. In particular, Patent Owner argues that cutting a textile element from a larger textile structure, such as is taught by Nishida (*see* Ex. 1005, col. 2, ll. 1-10), requires that the stitches at the textile element edges are broken, e.g., by a knife, die cutter, or other cutting technique, in order to separate the textile element from the surrounding textile structure. Paper 31, 7-8 (citing Ex. 2010 ¶¶ 101-105). Moreover, Patent Owner argues that, if untreated, such cut edges are subject to fraying or unraveling. *Id.*; *see also* Ex. 2010 ¶ 46 (citing Ex. 1007, 2, col. 1, ll. 56-63; Ex. 1009, col. 3, l. 68-col. 4, l. 16). Conversely, if the edges, like the textile of the flat knit textile element, are flat knit, Patent Owner argues that such edges inherently have a stable configuration in which the yarn of stitches at the edges of the textile element is unbroken and joined from one row to the next row. *Id.* at 8 (citing Ex. 2010 ¶ 105); *see also* MCGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS at 2054 (Ex. 3002); Ex. 1001 ¶ 56. Thus, Patent Owner argues that the yarns forming the flat knit edges of the flat knit textile element, as recited in substitute claim 47, retain their integrity, e.g., are unbroken and remain joined between rows. *See* Ex. 2010 ¶ 105. Therefore, according to Patent Owner, a *flat knit* edge of a flat knit textile element is structurally different from a *cut* edge of a flat knit textile element.

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Petitioner contends that the term “flat knit edges” has two plausible meanings. First, flat knit edges may be edges created when a textile element is cut from a larger flat knit textile structure. Second, flat knit edges may be edges created when a flat knit textile element is knit to shape. In an absolute sense, we agree. Nevertheless, we must determine what the term means in the context of *this* claim (including surrounding claim language) and in the context of the Specification of *this* patent. Here, we construe a flat knit edge to be an edge of a flat knit textile element, which is itself flat knit, e.g., which is not formed by cutting from a flat knit textile element.

b. Edges Free Of Surrounding Textile Structure Such That The Flat Knit Edges Are Not Surrounded By Textile Structure From Which The Textile Element Must Be Removed

Figures 8, 10, and 11 of the Specification of the '011 Patent depict textile elements 40, 40', and 40'', respectively, without any textile structure surrounding the textile elements. Patent Owner argues that these figures depict a flat knit textile element with flat knit edges and without any textile structure surrounding the textile elements, as recited in substitute claim 47. Paper 31, 3-4; *see, e.g.*, Ex. 1002, col. 6, ll. 41-50 (describing the unitary construction of textile element 40). In contrast, Figure 9 of the Specification depicts an embodiment of the disclosed invention in which a plurality of textile elements 40 is cut from a *circular knit* textile structure 60. Ex. 1002, col. 7, ll. 41-48. Thus, as noted above, Patent Owner argues that, unlike the cut out textile elements depicted in Figure 9, flat knit textile elements having

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flat knit edges are depicted in and disclosed by Figures 8, 10, and 11. Paper 31, 4 (citing Ex. 2010 ¶¶ 36, 37, 40-41, and 62-67).

Petitioner argues that this limitation of substitute claim 47 properly is construed as a negative limitation and that the negative limitation lacks sufficient written description. Paper 37, 4. As the U.S. Court of Appeals for the Federal Circuit explained,

[t]he test for determining compliance with the written description requirement is whether the disclosure of the application as originally filed reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject matter, *rather than the presence or absence of literal support in the specification for the claim language* . . . The content of the drawings may also be considered in determining compliance with the written description requirement.

In re Kaslow, 707 F.2d 1366, 1375 (Fed. Cir. 1983) (emphasis added; citations omitted). To the extent that the language of substitute claim 47 recites a negative limitation, we conclude that this negative limitation is supported by the positive disclosure of the various forms of the textile element, including a flat knit textile element, with “edges free of surrounding textile structure such that the flat knit edges are not surrounded by textile structure from which the textile element must be removed,” in Figures 8, 10, and 11 of the ’011 Patent. *See Santarus, Inc. v. Par Pharm., Inc.*, 694 F.3d 1344, 1351 (2012) (“it is possible for the patentee to support both the inclusion and exclusion of the same material.”). In view of the positive disclosure of this feature, the Specification need not disclose a reason to exclude. *Ex Parte Lazaridis and Brown*, Appeal No. 2010-

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005137, 2013 WL 1331529 (2013) (discussing an alternative basis for excluding a limitation in the absence of a positive recitation). Thus, we are persuaded that the Specification discloses flat knit edges free of surrounding material, as recited in substitute claim 47.

The language added to substitute claim 47 arguably recites the claimed invention in terms of the manner in which it is made, i.e., as a product-by-process limitation. During the oral hearing, the parties disagreed as to whether the added language is a product-by-process limitation. Paper 59, 10-11 and 20. We determined above that the process of creating a flat knit textile element with flat knit edges having no surrounding material creates an edge that is *structurally* different from a cut edge. Therefore, because the described process imparts structural differences to the textile element and, hence, to the claimed article of footwear, this limitation may be used to distinguish substitute claim 47 over the prior art. *See Greenliant Sys., Inc. v. Xicor LLC*, 692 F.3d 1261, 1265 (2012) (“[T]he process limitations in product-by-process claims . . . cannot be used to distinguish prior art *unless the process imparts structural differences to the product.*” (emphasis added)).

As noted above, we construe the claims in view of the Specification. The Specification need not present every embodiment or permutation of the invention, and the claims are not limited to a preferred embodiment of the invention. *See Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186 (Fed. Cir. 1998). The claims, however, may not enlarge the scope of what is patented beyond what the inventor has described as the invention.

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Claim construction is the judicial statement of what is and is not covered by the technical terms and other words of the claims. *See United States Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997). Here, the Specification broadly discloses the structure of the textile elements, e.g., textile elements 40, 40', and 40", from which a shoe upper may be formed. Moreover, the Specification describes an embodiment of a method for cutting a plurality of textile elements from a *weft* knit, and, in particular, a *circular* knit, textile structure (see Ex. 1002, fig. 9), but the disclosed invention is not limited to textile elements manufactured according to this embodiment. The Specification teaches that textile structure 60, from which textile elements 40, 40', or 40" may be cut, "may be formed" according to the embodiment depicted in Figure 9, but we conclude that those textile elements also may be made according to other embodiments. Ex. 1002, col. 8, ll. 1-14.

For example, Patent Owner's expert, Mr. Tonkel, testifies that, based on his reading of the Specification, textile elements 40, 40', and 40" may be made by the flat knitting of yarn by the known process of "knit[ting] to shape." Ex 2010 ¶¶ 36, 37, 40-42, and 62-67. Petitioner's expert does not disagree. Ex. 1001 ¶ 28 ("The '011 Patent describes that the textile element may be formed *any number of ways* with one or more yarns that are mechanically manipulated *using a variety of existing processes . . .*" (emphases added)); see also Ex. 1001 ¶ 53 ("Significantly, the '011 Patent states that the textile element may be formed *through any of the mechanical processes discussed in the specification.*" (emphasis added)). Thus, we

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conclude that this language of substitute claim 47 is construed properly to describe a knit to shape textile element formed by flat knitting, having flat knit edges. Such flat knit edges are knit, such that the yarns and fibers forming the flat knit edges of the flat knit textile element, as recited in substitute claim 47, are unbroken and remain joined between rows forming the edges.

5. Remaining Claim Terms or Phrases

All remaining claim terms and phrases recited in substitute claims 47-50 are given their ordinary and customary meaning, consistent with the Specification, as would be understood by one with ordinary skill in the art.

B. A Reasonable Number Of Substitute Claims

Under 35 U.S.C. § 316(d)(1), a patent owner may, for each challenged claim, propose a reasonable number of substitute claims in a motion to amend. Each proposed claim should be traceable to an original, challenged claim as a proposed substitute claim for that challenged claim. Absent special circumstances, a challenged claim can be replaced by only one claim. The presumption is that only one substitute claim would be needed to replace each challenged claim, although the presumption may be rebutted by a demonstration of need. 37 C.F.R. § 42.121(a)(3).

In its motion to amend, Patent Owner proposes substitute, independent claim 47 for original, independent claim 16; *two*, substitute, dependent claims, claims 48 and 49, for original, dependent claim 19; and substitute, dependent claim 50 for original, dependent claim 20. Paper 31, 2.

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Thus, Patent Owner has proposed more than one substitute claim for original claim 19.

In the order acknowledging that Patent Owner complied with the requirement of 37 C.F.R. § 42.121(a) to confer with us prior to filing a motion to amend, we noted that, if more than one substitute claim is proposed for a challenged claim, for each proposed substitute claim, the patent owner is expected to make a showing of patentable distinction over all other proposed substitute claims for the same challenged claim. Paper 29, 2-3 (quoting *Idle Free Sys., Inc. v. Bergstrom, Inc.*, IPR2012-00027, Paper 26, 8-9 (emphasis added)).

If more than one substitute claim is proposed for the same challenged claim, the motion to amend must show that these multiple substitute claims are patentably distinct from each other. If shown to be patentably distinct from each other, the multiple claims are likely not unreasonable in number. Paper 29, 2-3. If, however, no such patentable distinction is shown in the motion, then we, in our discretion, may deny entry of the excess claims *or* group the multiple substitute claims together for common treatment over the prior art. *Id.* at 3.

Patent Owner argues that dependent claims 48 and 49, each of which is a substitute for claim 19, are patentably distinct from each other. Paper 31, 15 (citing Ex. 2010 ¶¶ 169-176). According to Patent Owner, “[c]laim 49 does not teach or suggest ‘joined edges [that] shape the flat knit textile element to form a lateral region, a medial region, an instep region and a heel region of the upper,’” as recited in claim 48. Paper 31, 15 (citing Ex. 2010

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¶ 174). Similarly, Patent Owner argues that “[c]laim 48 does not teach or suggest ‘apertures formed by omitting stitches in the flat knit textile element and positioned in the upper for receiving laces,’” as recited in claim 49. *Id.* (citing Ex. 2010 ¶176).

Initially, we note that each of claims 48 and 49 depends directly from independent claim 47 and incorporates the limitations of claim 47 and original claim 19. With respect to the additional limitations of claim 48, Nishida describes joining the edges of the layout to form various portions of the upper, as recited. Ex. 1002, col. 2, ll. 6-10; col. 3, ll. 27-42; fig. 3; *see also* Paper 18, 20-25 (discussing original claims 3, 4, 6, 24, 39-41); Paper 37, 14-15 (claim chart for claim 48). With respect to the additional limitations of claim 49, Nishida describes forming lacing areas by knitting. Ex. 1002, col. 3, l. 66-col. 4, l. 5; *see also* Paper 18, 24-25 (discussing original claim 26); Paper 37, 15 (claim chart for claim 49). Further, the Specification of the ’011 Patent describes the omission of stitches, as recited in claim 49, to provide air permeability to the upper. Ex. 1002, col. 9, ll. 57-62; *cf.* Ex. 1005, col. 3, ll. 43-52 (“This type of production can, additionally, insure that the toe area 14 has a good air exchange capability. For example, this can be achieved by a net-like woven or knitted structure.”).

In view of limitations of claim 47 and original claim 19 *shared* by claims 48 and 49 and the teachings of Nishida, Patent Owner has not shown that claims 48 and 49 would not be obvious over each other, and Patent Owner does not persuade us that claims 48 and 49 are patentably distinct

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from each other. Thus, Patent Owner has failed to demonstrate that it proposes a reasonable number of substitute claims for original claim 19 in accordance with 37 C.F.R. § 42.121(a)(3). Nevertheless, in our discretion, we do not deny entry of claims 48 and 49 on this basis, but instead group claim 49 with claim 48, for patentability purposes. Further, we determine that Patent Owner does not argue separately that the limitations of claims 48 and 50 render them patentable over the prior art. *See* Paper 31, 6-10. Consequently, we group claims 48-50 with claim 47 for purposes of considering their patentability over prior art.

C. Scope of Motion to Amend

Pursuant to 37 C.F.R. § 42.121(a)(2), a motion to amend may be denied if: (1) the amendments seek to enlarge the scope of the original claims; (2) the amendments introduce new subject matter; or (3) the amendments do not respond to a ground of unpatentability, upon which trial was instituted. For the reasons discussed below, we determine that the substitute claims presented in Patent Owner's motion to amend are definite and narrow the scope of the original claims and do not introduce new subject matter. Further, we conclude that the substitute claims presented in Patent Owner's motion to amend respond to grounds of unpatentability, upon which trial was instituted, especially, anticipation by and obviousness over Nishida. *See* Paper 18, 37. Nevertheless, because, as set forth below, we deny Patent Owner's motion to amend for other reasons, we do not discuss further Patent Owner's arguments regarding the patentability of the

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substitute claims over Nishida alone or Petitioner's opposition to those arguments. *See* Paper 31, 6-10; Paper 37, 8-10.

1. Narrowing Amendments

With respect to substitute claim 47, Patent Owner proposes to replace the term “weft knit” with the term “flat knit” in original claim 16 and to add certain additional limitations to original claim 16. Paper 31, 1. Specifically, Patent Owner argues that “flat knitting” is a sub-type of “weft knitting.” *Id.* at 3; Paper 44, 1-2. As noted above, we construe the term “flat knit textile element” in substitute claim 47 to mean a “flat *weft* knit textile element.” Hence, it is narrower than the corresponding limitation of claim 16. Further, the additional limitations of substitute claim 47, reciting (1) “flat knit edges” and (2) the manner in which such edges are *not* formed, together provide structural limitations that were not present in original claim 16.

For the foregoing reasons, we determine that Patent Owner's proposed substitute claims 47-50 comply with 37 C.F.R. § 42.121(a)(2).

2. Written Description for Substitute Claims

The purpose of the written description requirement is to convey with reasonable clarity to those skilled in the art that, as of the filing date sought, applicant was in possession of the invention as now claimed. *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64 (Fed. Cir. 1991). We note that “the written description requirement is satisfied by the patentee's disclosure of ‘such descriptive means as words, structures, figures, diagrams, formulas, etc., that fully set forth the claimed invention.’” *Enzo Biochem, Inc. v. Gen-*

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Probe Inc., 323 F.3d 956, 969 (Fed. Cir. 2002) (quoting *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997)). Patent Owner argues that the additional limitations of substitute claim 47 are supported by the disclosure of the patent application, U.S. Patent Application No. 10/791,289 (“the ’289 Application”), from which the ’011 Patent issued. Paper 31, 3-4 (citing Ex. 1003, 168-9, 173-5, 179, 181, and 184). We agree.

a. Flat Knit Textile Element

Patent Owner argues that, as with the ’011 Patent, the ’289 Application discloses that “weft knitting . . . include[s] circular knitting and flat knitting.” *Id.* at 3 (citing Ex. 1003, 168); *cf.* Ex. 1002, col. 7, ll. 5-8. Further, claim 65 of the ’289 Application recites that “an upper incorporating a textile element [is] formed through a *flat knitting* process” (emphasis added). *Id.* (citing Ex. 1003, 184); *see also* Ex. 1003, 179, 181 (claims 19 and 38 of the ’289 Application recite “flat knitting”). It is well established that subject matter recited in a claim and embraced in an application, as originally filed, is itself a part of the disclosure, even though it may not be defined in the specification. *Application of Frey*, 166 F.2d 572, 575 (CCPA 1948).

Petitioner contends that “[t]he Board has yet to provide a construction of ‘flat knitting,’ and [that] the Board’s construction of ‘weft knitting’ and ‘warp knitting’ does not indicate that ‘flat knit’ is *exclusively* a sub-type of ‘weft knitting.’” Paper 37, 2 (emphasis added). Initially, we note that we provide a construction of the term “flat knitting” above. Specifically, in the

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context of this Specification, flat knitting is a sub-type of weft knitting, in which the textile is weft knit as a sheet or flat piece of textile. Ex. 1002, col. 7, ll. 5-8; *see also* Ex. 2010 ¶ 60 (“[I]n flat knitting a fabric is produced on a machine in generally flat form, with yarn alternating back and forth across the fabric. [*E.g.*, Ex. 2011, 8.] Moreover, a flat knit fabric is a fabric that has been knit on a flat knitting machine. [*E.g.*, *id.* at 6.]”); Ex. 1001 ¶ 56 (“weft knits may be made with flat *or* circular machines” (emphasis added)). Therefore, we conclude that Patent Owner has demonstrated support for the term “flat knit textile element” in the application from which the ’011 Patent claims benefit, and that, as both Patent Owner’s and Petitioner’s experts agree, the meaning of flat knitting, as construed herein, was well-known at the time of the invention. *See* Ex. 2010 ¶¶ 49-50; Ex. 1001 ¶ 54.

b. Edges Free Of Surrounding Textile Structure Such That The Flat Knit Edges Are Not Surrounded By Textile Structure From Which The Textile Element Must Be Removed

Patent Owner argues that, as with the ’011 Patent, the ’289 Application discloses that “flat knit edges [are] free of surrounding textile structure such that the flat knit edges are not surrounded by textile structure from which the textile element must be removed.” Paper 31, 4. In particular, Patent Owner argues that Figures 8, 10, and 11 depict textile elements 40, 40', and 40", respectively, “free of surrounding textile structure such that the flat knit edges are not surrounded by textile structure from which the textile element must be removed.” *Id.* In contrast, Patent Owner

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argues that Figure 9 depicts a different embodiment of the invention than that recited in the substitute claims. *Id.*

Figure 9 depicts “a perspective view of a textile structure that incorporates two of the textile elements.” Ex. 1003, 164 (’289 Application ¶ 24). In particular, the Specification of the ’289 Application describes that:

An example of a textile structure 60 that may be formed with a wide-tube circular knitting machine is depicted in Figure 9. Textile structure 60 has a generally cylindrical configuration, and the types of stitches vary throughout textile structure 60 so that a pattern is formed with the outline of textile element 40. That is, differences in the stitches within textile structure 60 form an outline with the shape and proportions of textile element 40.

Id. at 169 (’289 Application ¶ 45 (emphasis added)). Thus, Patent Owner argues that the embodiment depicted in Figure 9 does not limit the textile elements depicted in Figures 8, 10, and 11 to those manufactured according to the process of Figure 9 and that a textile element may or may not be formed by removing it from a larger textile structure, such as textile structure 60. Paper 31, 4. Further, referring to Figures 8, 10, and 11, Dr. Tonkel opines that the ’289 Application “illustrates multiple examples in which the textile element is shown in its final shape and is not described as being formed as part of a larger textile structure from which it must be removed.” Ex. 2010 ¶ 63; *see also* Ex. 2010 ¶ 37. Moreover, Dr. Tonkel asserts that his opinions are from the perspective of a person of ordinary skill in the art. Ex. 2010 ¶¶ 52-53.

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Petitioner disagrees and argues that Patent Owner's contention that this limitation is described sufficiently in the '289 Application rests on a single phrase, and, perhaps, on a single word in that phrase, that textile element 40 "*may be formed as a part of a larger textile element.*" Paper 37, 3-4 (citing Paper 31, 4; Ex. 2010 ¶ 63 (emphasis added)). According to Petitioner, Patent Owner argues that, based on this disclosure, textile element 40 may be formed as part of a larger textile structure *or* may be knit to shape. *Id.* In view of the depiction of the textile element, without surrounding material, in Figures 8, 10, and 11 of the '289 Application and the non-limiting language used with respect to the embodiment, with surrounding material, depicted in Figure 9, we are persuaded that the Specification of the '289 Application adequately supports the language added to original claim 16 in substitute claim 47.

3. *Definiteness of Substitute Claims*

Petitioner argues that the substitute claims are indefinite. Paper 37, 6-8. The test for definiteness under 35 U.S.C. § 112, ¶ 2, is whether "those skilled in the art would understand what is claimed when the claim is read in light of the specification." *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576 (Fed. Cir. 1986) (citations omitted). More specifically, "if a claim is amenable to two or more plausible claim constructions, the USPTO is justified in requiring the applicant to more precisely define the metes and bounds of the claimed invention by holding the claim unpatentable under 35 U.S.C. § 112, [¶ 2], as indefinite." *Ex parte Miyazaki*, 89 USPQ2d 1207, 1211 (BPAI 2008) (precedential). Citing

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Miyazaki, Petitioner contends that the substitute claims, in particular, substitute claim 47, are “amenable to two or more plausible claim constructions.” Paper 37, 6-8. We disagree.

Petitioner contends that the limitations added to original claim 16 reciting that “flat knit edges free of surrounding textile structure such that the flat knit edges are not surrounded by textile structure from which the textile element must be removed” have two plausible claim constructions. *Id.* at 6. First, Petitioner contends that this language may be construed to recite a flat knit textile element having flat knit edges, which has been removed from a surrounding textile structure. *Id.* Second, Petitioner contends that this language may be construed to recite a flat knit textile element having flat knit edges, which has been knit to shape. *Id.* at 6-7; *see also* Ex. 1015, 68-98 (transcript of deposition of Dr. Tonkel).

Petitioner contends that only the first construction is supported by the disclosure of the Specification of the '011 Patent. *Id.* at 6. We disagree, and, for the reasons set forth above, we determine that the second construction is supported. Figure 9 of the '011 Patent depicts a single embodiment of a process for forming textile elements, in which a pair of textile elements 40 is cut from *circular* knit textile structure 60. *See* Ex. 1002, col. 7, ll. 41-48. Although circular knitting, like flat knitting, is a type of weft knitting, circular knitting is not the same as flat knitting. Moreover, as depicted in Figure 9, the process is intended to produce multiple textile elements from a single textile structure. *Id.* at ll. 56-58. Petitioner fails to identify any disclosure in the Specification of the '011 Patent that would

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limit the formation of textile elements 40, 40', and 40" of Figures 8, 10, and 11, respectively, solely to the process of Figure 9. Although the substitute claims are interpreted in light of the Specification, limitations from the Specification are not read into the substitute claims. *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993). Thus, we are not persuaded that the disclosure of the textile elements of Figures 8, 10, and 11 should be limited by the process embodiment depicted in Figure 9.

Petitioner notes that its textile expert, Dr. Adanur, opines that a person of ordinary skill in the art at the time of the priority date of the '011 Patent would understand that, under the broadest reasonable interpretation, "flat knit edges" means "edges of a knitted textile that are knit in flat form," whether or not knit to shape. Paper 37, 7-8 (citing Ex. 1016 ¶ 38). This also does not demonstrate that the claim language of the substitute claims may be construed to recite *both* that the textile element is removed from a larger textile structure and that the textile element is knit to shape. Therefore, construing the language of the substitute claims in accordance with the disclosure of the Specification, we determine that the substitute claims recite a flat knit textile element having flat knit edges, which has been knit to shape, and that the substitute claims are not susceptible to two plausible constructions. Thus, the substitute claims are not indefinite for the reasons proposed by Petitioner.

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D. Patentability over Prior Art

An *inter partes* review is neither a patent examination proceeding nor a patent reexamination proceeding. The substitute claims proposed in a motion to amend are not entered automatically and then subjected to examination. Rather, the proposed substitute claims will be added directly to the patent, without examination, *if* the patent owner's motion to amend claims is granted. In a motion to amend, the patent owner is not rebutting a rejection in an office action, as though this proceeding were a patent examination or a reexamination. Instead, the patent owner, as the movant, bears the burden of establishing the patentability of the proposed substitute claims over the prior art of record and also other prior art known to Patent Owner. We deny the motion to amend because (1) Patent Owner has not met this burden and (2) Petitioner has shown that the substitute claims would have been rendered obvious over the combination of the teachings of Nishida and Schuessler I and II.

1. Patentability Over Other Art Known To Patent Owner

In the motion to amend, Patent Owner states that:

The proposed claims are patentable over the prior art, including prior art identified by the Board in its Decision on whether to institute a trial *and other prior art known to NIKE*.

Paper 31, 3 (emphasis added). Such a conclusory statement that the proposed claims are patentable over “other prior art known to [Patent Owner]” is facially inadequate. Patent Owner's motion does not discuss (1) the level of ordinary skill in the art, explaining the basic knowledge and skill set already possessed by one of ordinary skill in the art, with respect to the

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new claim features or (2) the other known prior art. Moreover, failing to identify the “other prior art” and limiting the discussion to the references relied upon in the petition or raised in Petitioner’s opposition to the motion to amend does not provide a meaningful analysis of such art.

In a prior order (Paper 22), we directed Patent Owner to *Idle Free*, IPR2012-00027, Paper 26, dated June 11, 2013, as providing guidance on motions to amend. Paper 22, 2-3. In *Idle Free*, the Board advised the patent owner that, in a motion to amend:

A patent owner should identify specifically the feature or features added to each substitute claim, as compared to the challenged claim it replaces, and come forward with technical facts and reasoning about those feature(s), including construction of new claim terms, sufficient to persuade the Board that the proposed substitute claim is patentable over the prior art of record, *and over prior art not of record but known to the patent owner*. The burden is not on the petitioner to show unpatentability, but on the patent owner to show patentable distinction over the prior art of record and also prior art known to the patent owner. Some representation should be made about the specific technical disclosure of the closest prior art known to the patent owner, and not just a conclusory remark that no prior art known to the patent owner renders obvious the proposed substitute claims.

A showing of patentable distinction can rely on declaration testimony of a technical expert about the significance and usefulness of the feature(s) added by the proposed substitute claim, from the perspective of one with ordinary skill in the art, and also on the level of ordinary skill, in terms of ordinary creativity and the basic skill set. *A mere conclusory statement by counsel, in the motion to amend, to the effect that one or more added features are not described in any prior art, and would not have been suggested or rendered*

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obvious by prior art, is on its face inadequate.

Idle Free, IPR2012-00027, Paper 26, 7-8 (emphasis added); *see also Idle Free*, IPR2012-00027, Paper 66, 33-38 (denying motion to amend in final written decision). Yet, in its motion to amend, Patent Owner addresses only the references asserted in the petition and in the opposition to the motion to amend. Paper 31, 6-15; *see also* Paper 44, 4-5. As the Board explained, “[d]istinguishing the proposed substitute claims only from the prior art references applied to the original patent claims, however, is insufficient to demonstrate general patentability over prior art.” *Idle Free*, IPR2012-00027, Paper 66, 33. Consequently, the portion of Patent Owner’s motion to amend requesting entry of substitute claims 47-50 is *denied*.

2. *Obviousness over Nishida and Schuessler I and II*

For the reasons below, we also are not persuaded that Patent Owner has demonstrated the patentability of the proposed substitute claims over a ground of unpatentability presented by Petitioner, in particular, the ground involving Nishida and Schuessler I and II. As noted above, we instituted *inter partes* review of claims 16, 19, and 20 because we determined that Petitioner had demonstrated a reasonable likelihood of showing that these claims were rendered obvious by Nishida. Paper 18, 31. Petitioner now argues that substitute claims 47-50 are unpatentable as rendered obvious by Nishida in view of the additional teachings of Schuessler I and II. Paper 37, 10-11. Moreover, because Patent Owner did not file a patent owner response to the petition, in this final decision, we accept as unchallenged that Nishida teaches or suggests all of the limitations of original claims 16, 19,

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and 20. *See* Paper 19, 2-3 (“The patent owner is cautioned that any arguments for patentability not raised in the response will be deemed waived.”). Thus, we now consider only whether Schuessler I and II teach or suggest the limitations added in substitute claims 47-50 and whether Petitioner has shown some reasoning supported by a rational underpinning for combining the teachings of Nishida with those of Schuessler I and II to achieve the invention recited in the substitute claims. For the reasons set forth below, we are persuaded that Nishida and Schuessler I and II render substitute claims 47-50 obvious.

Petitioner argues that Schuessler I and II teach or suggest “flat knit edges free of surrounding textile structure such that the flat knit edges are not surrounded by textile structure from which the textile element must be removed.” Paper 37, 11. In particular, Schuessler I teaches a method of producing a knitted helmet, e.g., a knitted cap. Ex. 1020, col. 1, ll. 15-22. The knitted helmet may be formed from a swatch knit on a flat knitting machine, such as that described in Schuessler II (Ex. 1021, col. 1, ll. 39-42), “as knitted *without requiring cutting*” (Ex. 1020, col. 1, ll. 25-26 (emphasis added); *see also* Ex. 1020, col. 1, ll. 17-18). *See* Paper 37, 10. The swatch is a two-dimensional shape the edges of which may be joined to form a three-dimensional shape, including an opening to receive the helmet wearer’s head. Paper 37, 10-11 (citing Ex. 1020, col. 2, ll. 41-45); *see also* Ex. 1020, col. 1, ll. 32-36; fig. 2 (depicting a finished helmet). Thus, Schuessler I teaches or suggests knitting the swatch to shape. Ex. 1020, col. 1, l. 48-col. 2, l. 2.

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Petitioner contends that Nishida and Schuessler I are in similar fields and address the same problem, namely the formation of two-dimensional textile elements having edges that are joined to form three-dimensional, wearable items. Paper 37, 11; *cf.* Ex. 1005, figs. 1 (two-dimensional layout 2) and 3 (three-dimensional, shoe upper 3); Ex. 1020, figs. 1 (two-dimensional helmet swatch) and 2 (three-dimensional helmet). Further, Schuessler II teaches that the two-dimensional helmet swatch of Figure 1 of Schuessler I may be knit to shape on a flat knitting machine. Paper 37, 11 (citing Ex. 1023 ¶ 15). Petitioner contends, therefore, that a person of ordinary skill in the art would have reason to combine the teachings of these three references to achieve the invention recited in substitute claim 47. *Id.*

Patent Owner does not argue Petitioner's assessment of the teachings of these references. Patent Owner also does not dispute that all of the limitations of the claims are taught in the prior art. Instead, Patent Owner argues that Petitioner's contention that a person of ordinary skill in the art would combine Nishida's teaching regarding the reduction of waste by placing layouts in adjoining positions and Schuessler I's teaching regarding knitting textile elements to shape is illogical. Paper 44, 5. Specifically, Patent Owner argues that Petitioner's reason for combining these teachings is somehow flawed because "*after* they are combined the elements of each reference serve the same purpose." *Id.* As the U.S. Supreme Court explained, however, "if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious

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unless its actual application is beyond his or her skill.” *KSR Int’l Co. v. Teleflex Inc.*, 555 U.S. 398, 417 (2007). In this case, that the elements of the prior art references would “serve the same purpose” when combined is a factor in favor of an obviousness determination, and not a suggestion of non-obviousness, as urged by Patent Owner.

Because we are persuaded that Petitioner has demonstrated that the teachings of Nishida and Schuessler I and II teach or suggest all of the limitations of substitute claim 47 and that a person of ordinary skill in the art would have had reason to combine the teachings of these references to achieve the recited article of footwear, we determine that Patent Owner fails to meet its burden of showing that it is entitled to the relief requested in its motion to amend. Because we group substitute claims 48-50 with claim 47 for purposes of assessing patentability, we also determine that Patent Owner fails to meet its burden of showing that it is entitled to the relief requested in its motion to amend with respect to substitute claims 48-50. Consequently, the portion of Patent Owner’s motion to amend requesting entry of substitute claims 47-50 also is *denied* for failing to demonstrate that the substitute claims are patentable over Nishida and Schuessler I and II.

E. Petitioner’s Motion to Exclude

Petitioner has filed a motion seeking to exclude the following evidence: (1) certain portions of the transcript of the cross-examination of Dr. Frederick (Ex. 2009, pg. 116, ll. 3-25); and (2) references to this testimony by Patent Owner’s expert, Dr. Tonkel (Ex. 2010 ¶ 65). Paper 44, 3-5. As

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the movant, Petitioner has the burden of establishing that it is entitled to the requested relief. 37 C.F.R. § 42.20(c).

Petitioner seeks to exclude certain portions of the testimonial evidence obtained by Patent Owner during the cross-examination of Petitioner's expert, Dr. Frederick. Paper 49, 1. In particular, Petitioner argues that, contrary to the requirements of 37 C.F.R. § 42.53(d)(5)(ii), Patent Owner's cross-examination of Dr. Frederick exceeded the scope of Dr. Frederick's direct testimony (Ex. 1001), which was limited to the construction of terms of original claims 1-46 and to the unpatentability of those original claims in view of grounds identified by Petitioner. Paper 49, 1. Petitioner argues that Patent Owner questioned Dr. Frederick regarding "flat knit edges," a term that did not appear in original claims 1-46, but which Patent Owner included in the substitute claims of its motion to amend. *Id.*; *see also* Paper 54, 3-4.

Although Petitioner argues that Patent Owner's questioning of Dr. Frederick exceeded the scope of his direct testimony, Petitioner only objected to one of several questions in the testimony that it seeks to exclude, and Petitioner stated an "[o]bjection to form" with respect to that question, not an objection that the question or any of the preceding questions sought testimony that was *beyond the scope* of the Dr. Frederick's direct testimony. Ex. 2009, pg. 116, l. 24 (emphasis added); *see* Paper 54, 2-3.

Moreover, Petitioner requests that we grant its motion to exclude the portions of the transcript of the cross-examination of Dr. Frederick *preceding* the question that was the subject of Petitioner's objection. *Id.* at 5-6 (citing Ex. 2009, pg. 116, ll. 3-25). As a result of the grant of this

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motion, references to this challenged testimony by Patent Owner's expert, Dr. Tonkel, (Ex. 2010 ¶ 65) also presumably would be excluded.

Patent Owner opposes Petitioner's motion to exclude. In particular, Patent Owner argues that: (1) Petitioner did not object to most of the questions or testimony that it now seeks to exclude, objecting only to a single question; (2) the elicited testimony related to aspects of Dr. Frederick's direct testimony; (3) the elicited testimony pertained to Dr. Frederick's credibility as an expert witness regarding the patented technology; and (4) Patent Owner elicited the testimony without the use of leading questions, i.e., in the proper form. Paper 51, 1.

The current situation does not require us to assess the merits of Petitioner's motion to exclude. As discussed above, even without relying upon the aforementioned portions of the cross-examination testimony of Dr. Frederick, we have concluded that Patent Owner has demonstrated that the term "flat knit edges" of substitute claims 47-50 is supported by the disclosure of the '289 Application. Accordingly, Petitioner's motion to exclude evidence is *dismissed* as moot.

III. CONCLUSION

For the reasons set forth above, we grant the portion of Patent Owner's motion to amend requesting cancellation of claims 1-46 of the '011 Patent. In its motion to amend, Patent Owner has not met its burden of establishing the patentability of substitute claims 47-50. Therefore, we deny

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the portion of Patent Owner's motion to amend requesting entry of substitute claims 47-50.

This is a final decision. Parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

IV. ORDER

In consideration of the foregoing, it is

ORDERED that the portion of Patent Owner's motion to amend requesting cancellation of claims 1-46 of the '011 Patent is *granted*;

FURTHER ORDERED that the portion of Patent Owner's motion to amend requesting entry of substitute claims 47-50 is *denied*; and

FURTHER ORDERED that Petitioner's motion to exclude evidence is *dismissed* as moot.

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TAB 2

(12) **United States Patent**
Dua et al.

(10) **Patent No.:** **US 7,347,011 B2**
(45) **Date of Patent:** **Mar. 25, 2008**

(54) **ARTICLE OF FOOTWEAR HAVING A
TEXTILE UPPER**

(75) Inventors: **Bhupesh Dua**, Portland, OR (US);
Edward Nathaniel Thomas, Portland,
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(73) Assignee: **NIKE, Inc.**, Beaverton, OR (US)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 506 days.

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(21) Appl. No.: **10/791,289**

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(Continued)

(51) **Int. Cl.**
A43B 1/04 (2006.01)

OTHER PUBLICATIONS

(52) **U.S. Cl.** **36/45**; 36/10; 36/3 A

Santoni S.p.A. publication: Knitting Wear, SM8 Top 1 (2 pages).

(58) **Field of Classification Search** 36/45,
36/3 A, 10, 55

Primary Examiner—Marie Patterson

See application file for complete search history.

(74) *Attorney, Agent, or Firm*—Banner & Witcoff, Ltd.

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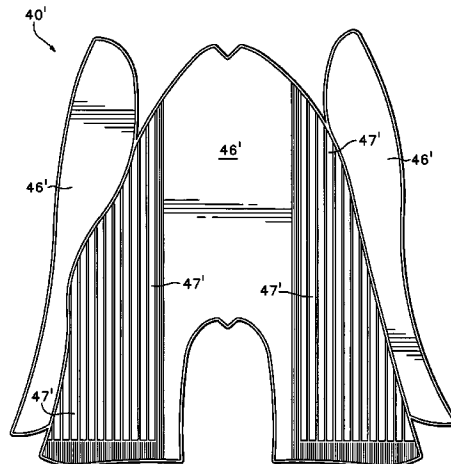
(57) **ABSTRACT**

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An article of footwear and a method of manufacturing the article of footwear are disclosed. The footwear may include an upper and a sole structure. The upper incorporates a textile element with edges that are joined together to define at least a portion of a void for receiving a foot. The textile element may also have a first area and a second area with a unitary construction. The first area is formed of a first stitch configuration, and the second area is formed of a second stitch configuration that is different from the first stitch configuration to impart varying textures to a surface of the textile element. Various warp knitting or weft knitting processes may be utilized to form the textile element.

46 Claims, 12 Drawing Sheets



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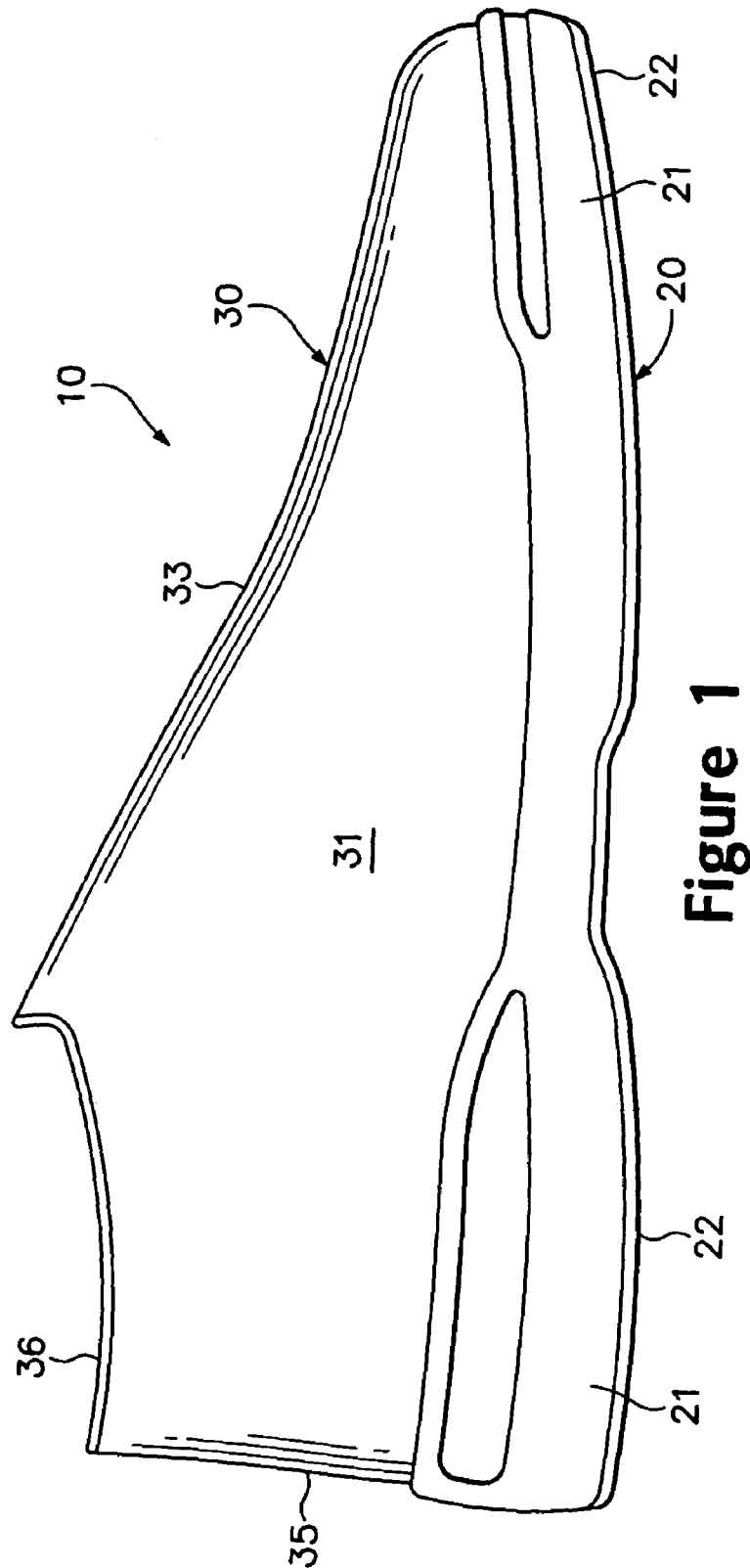


Figure 1

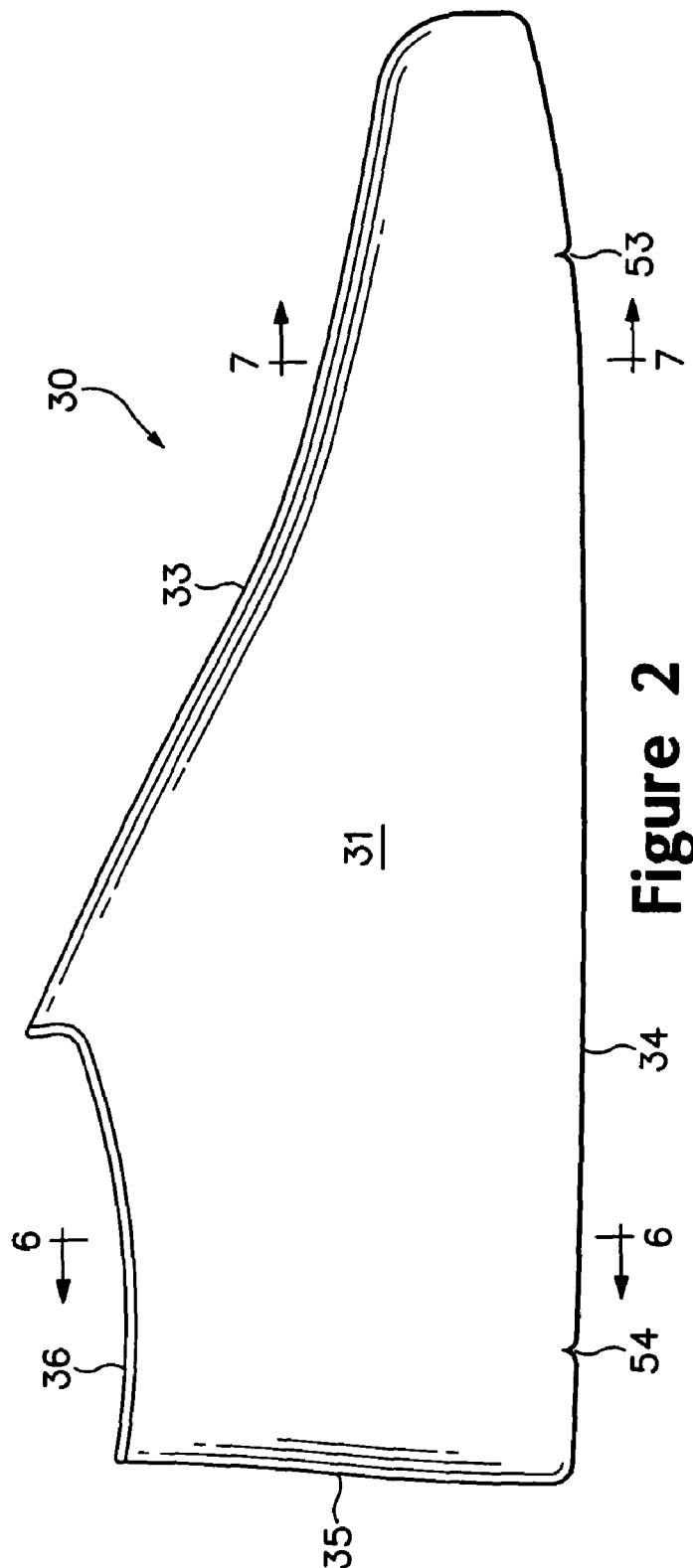


Figure 2

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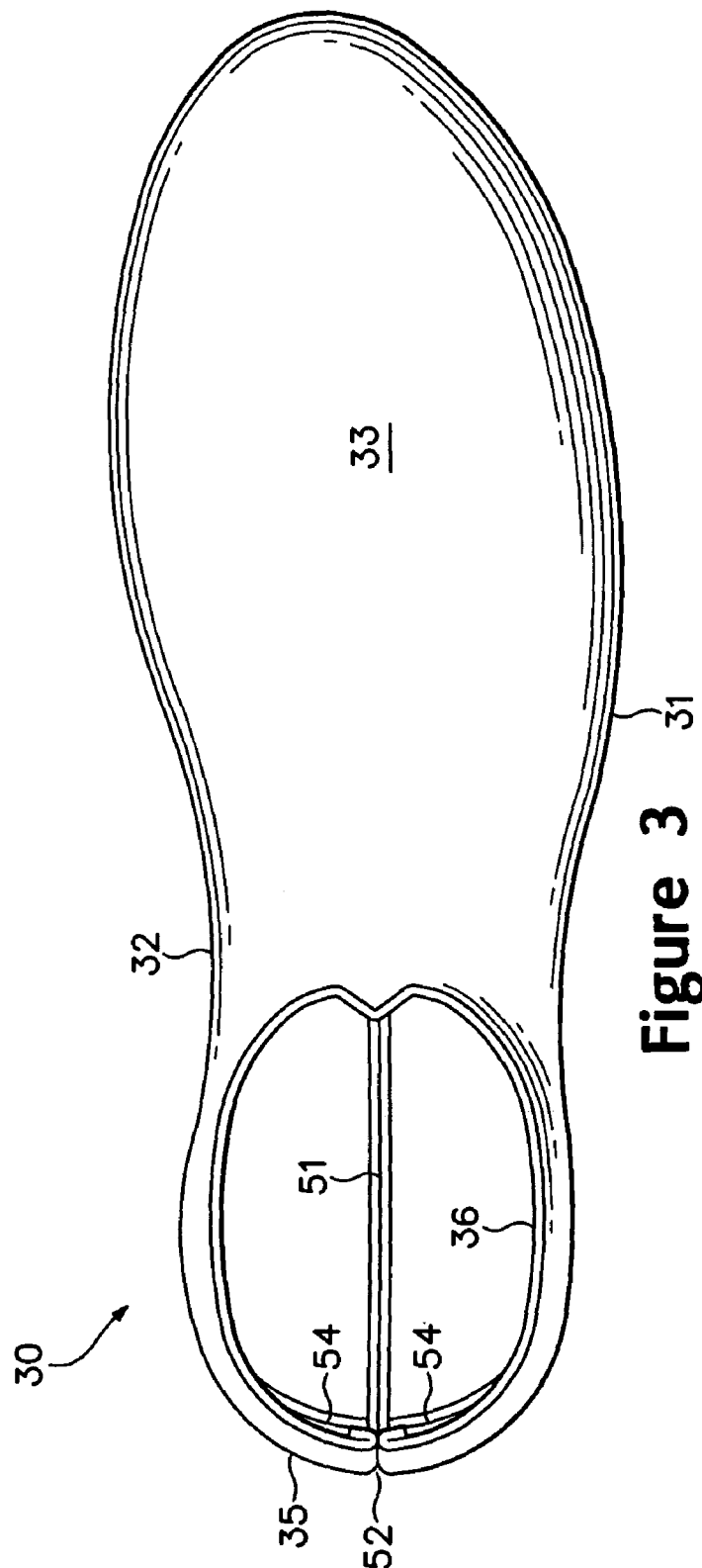
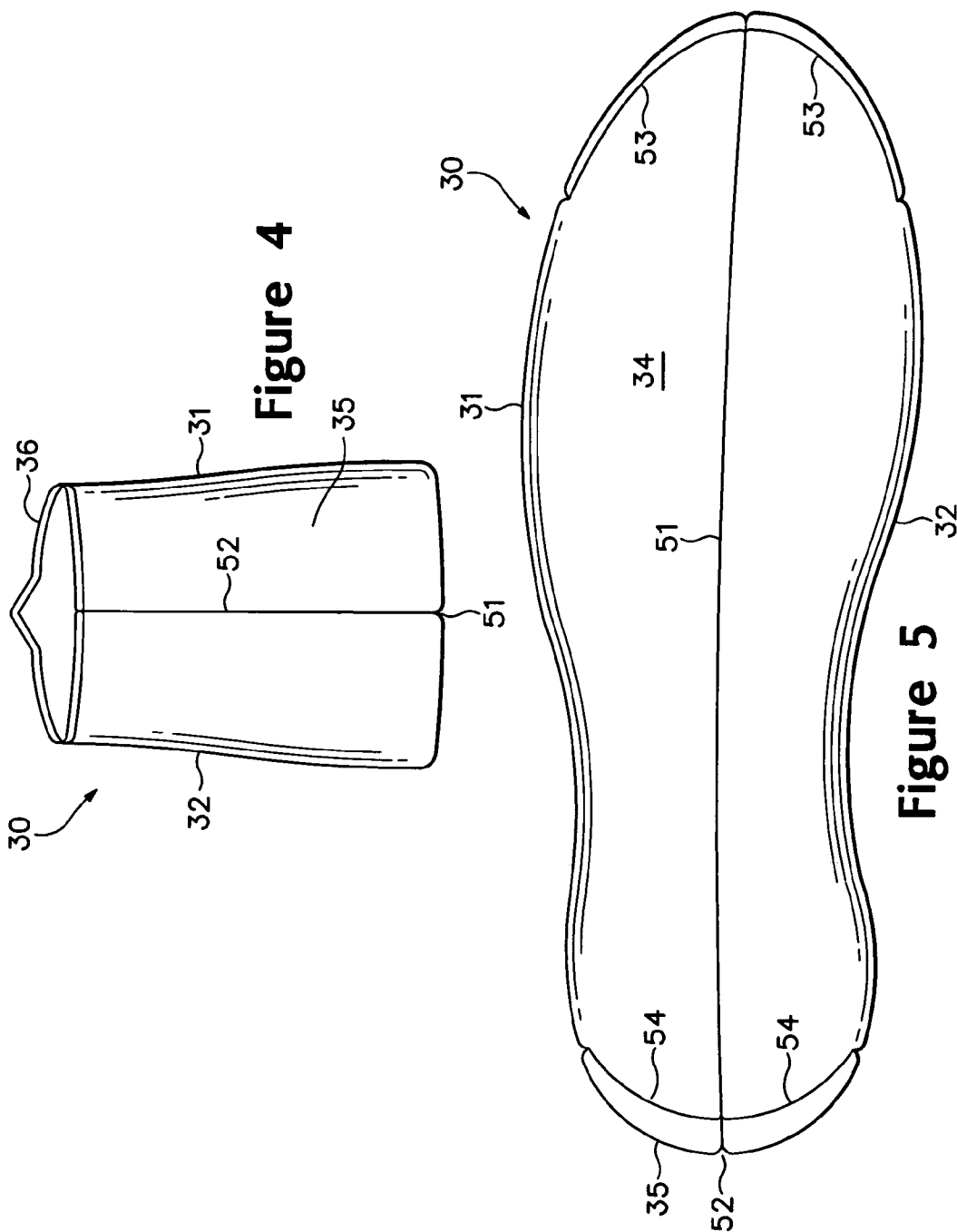


Figure 3



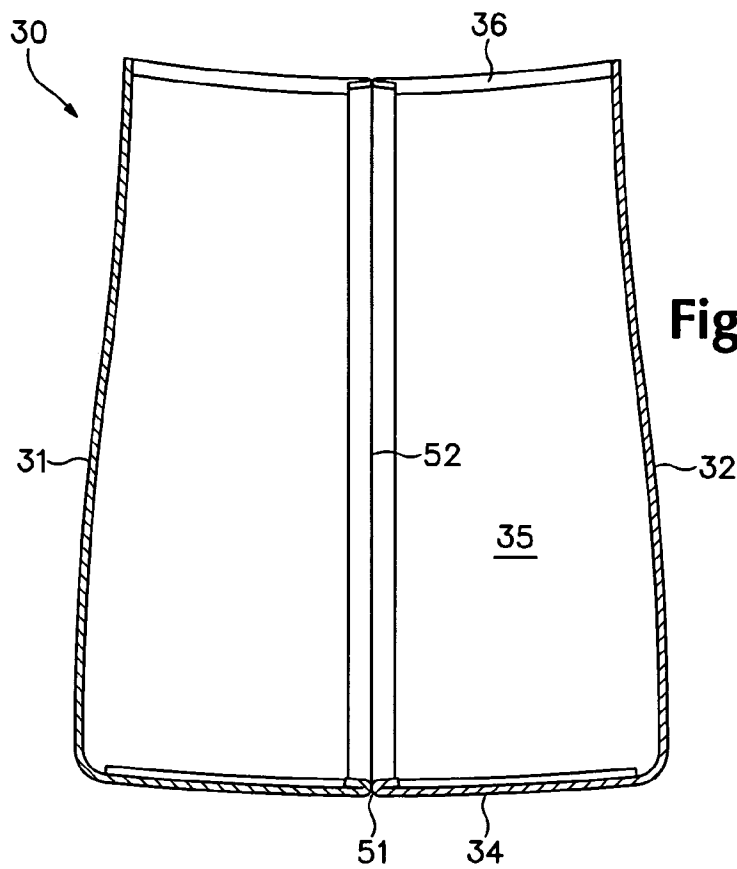


Figure 6

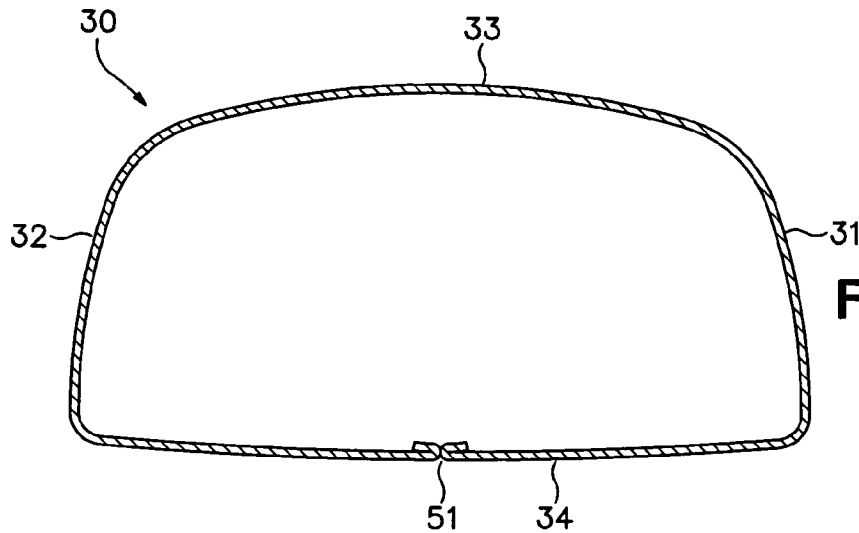


Figure 7

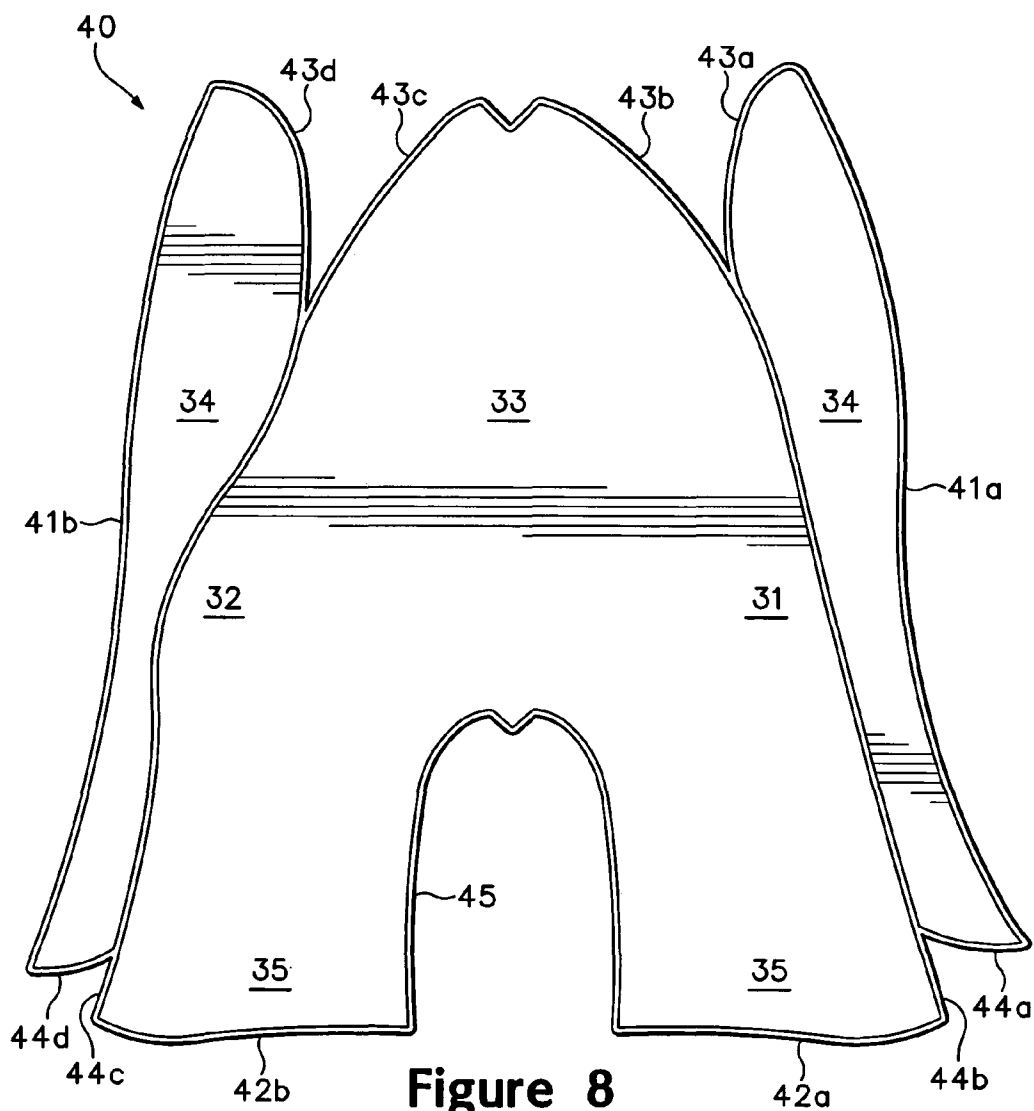


Figure 8

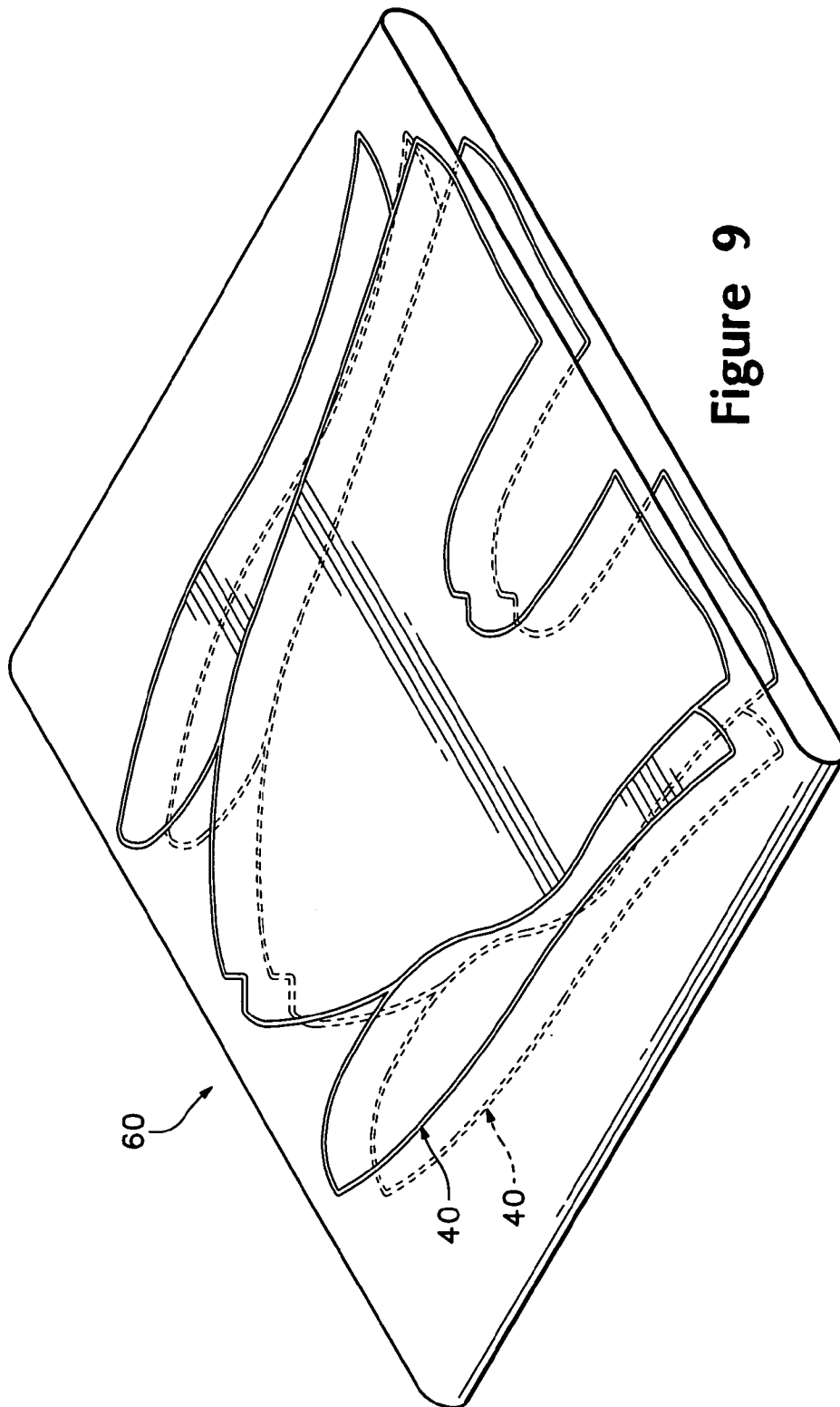


Figure 9

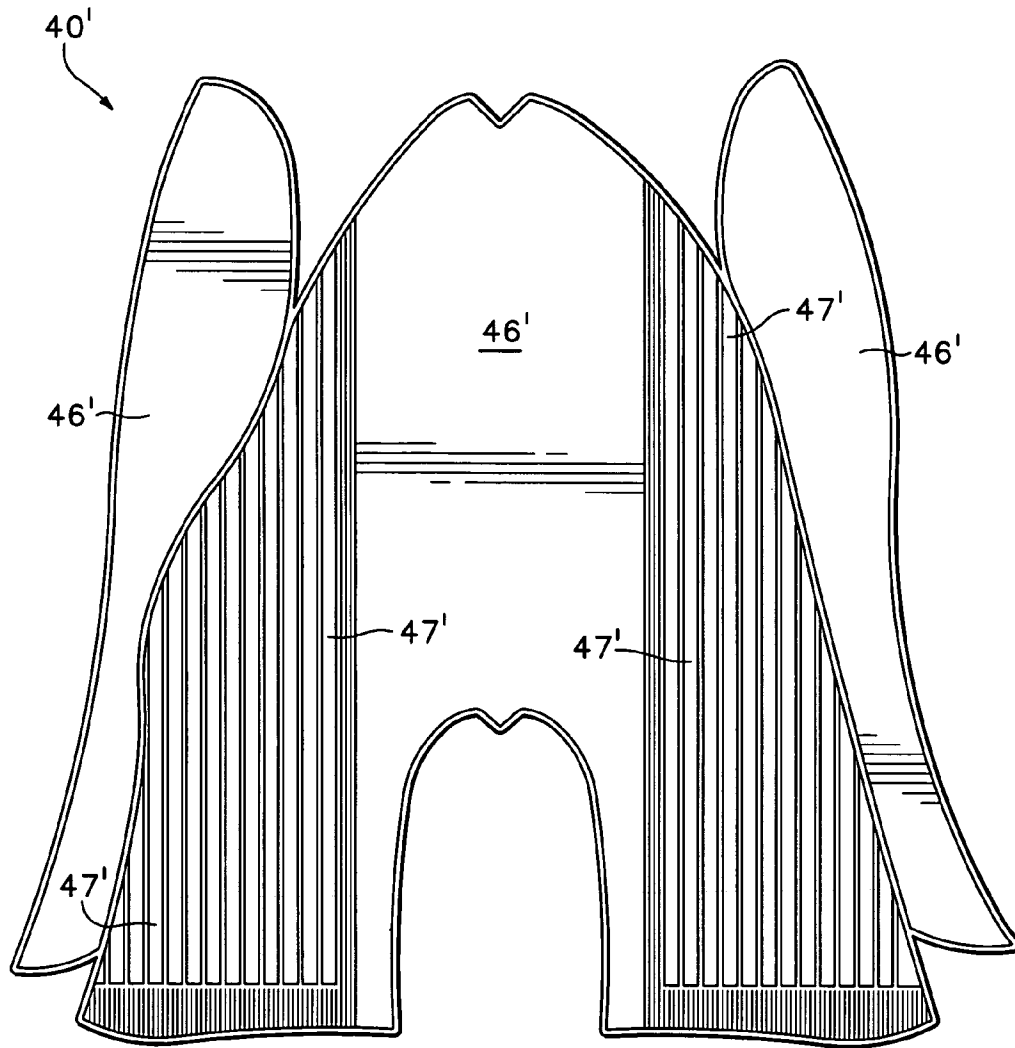


Figure 10

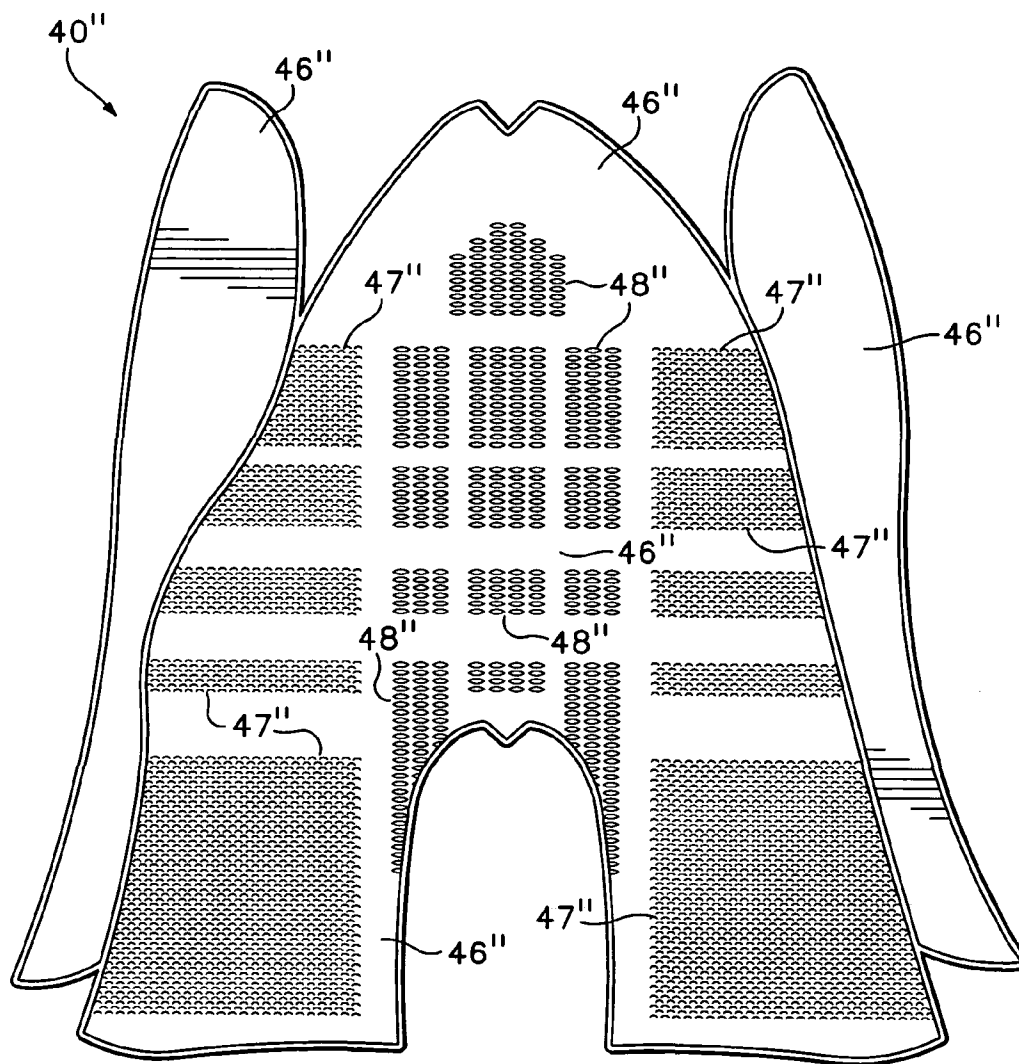


Figure 11

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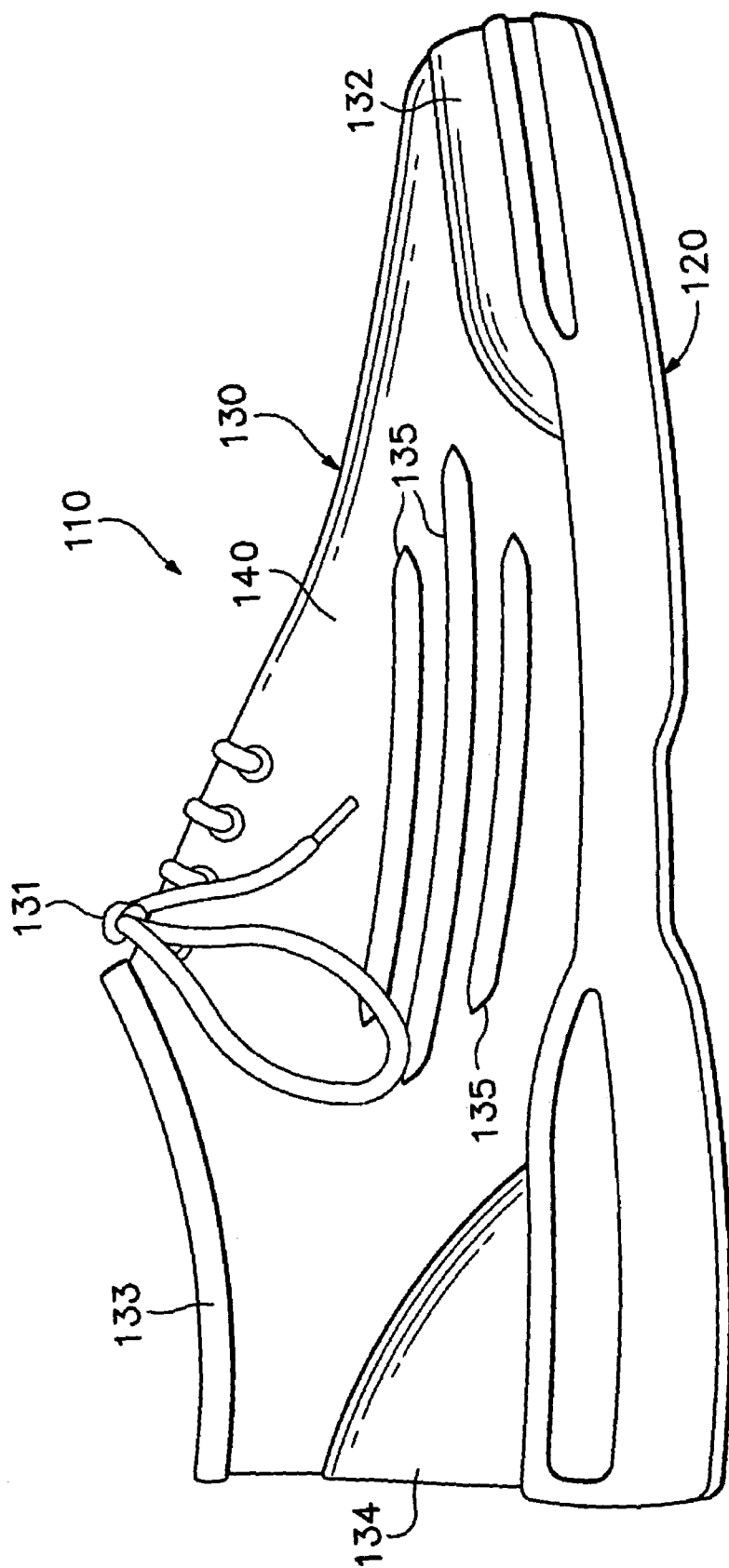


Figure 12

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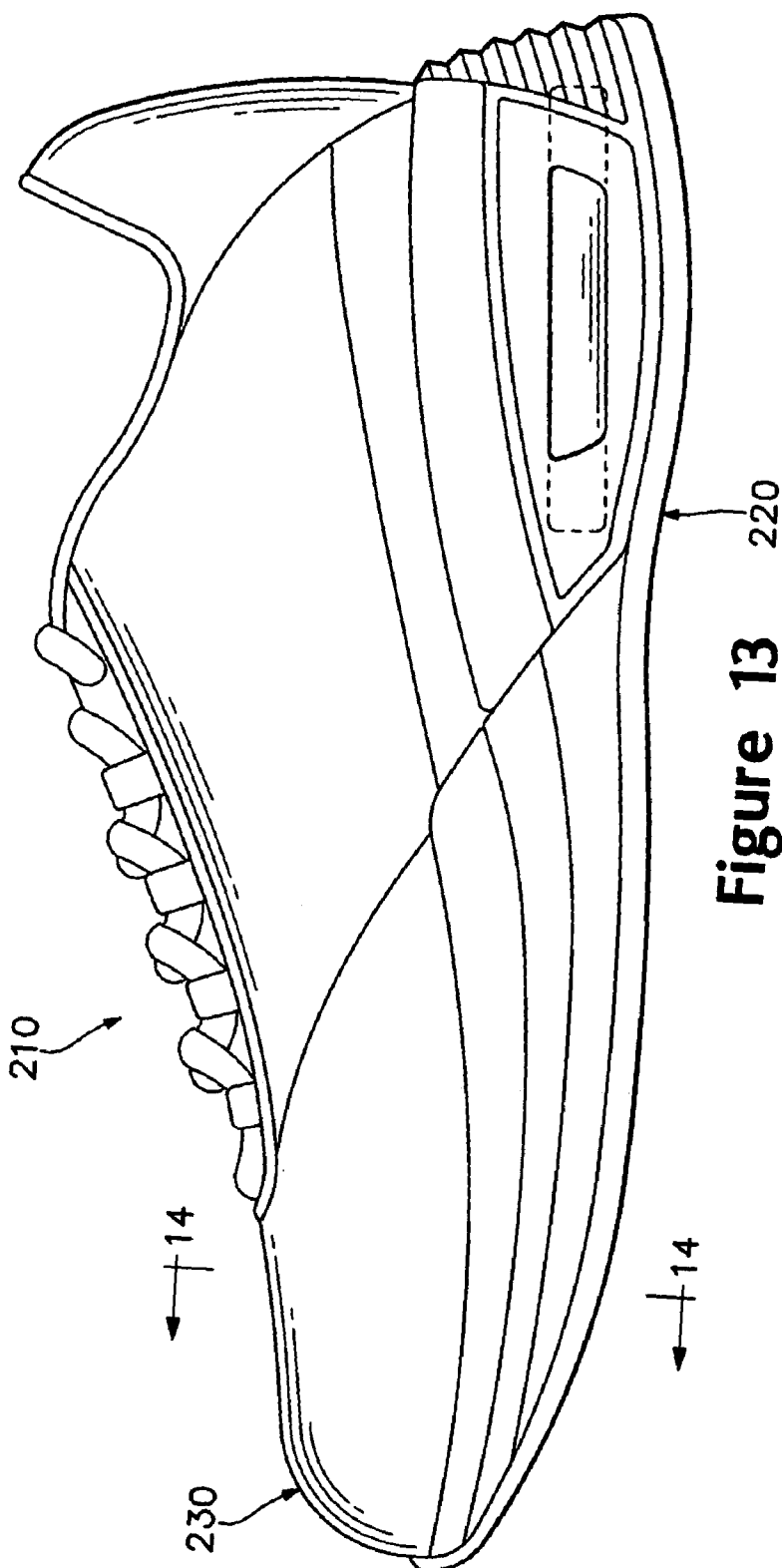


Figure 13

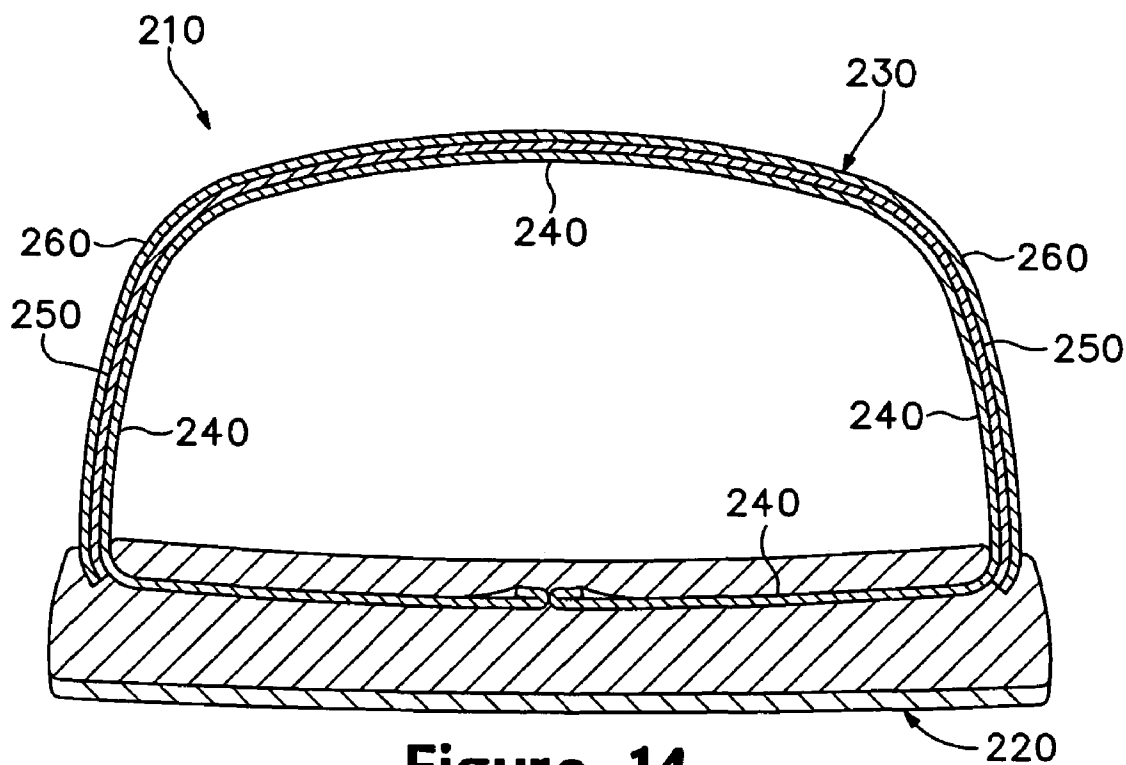


Figure 14

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**ARTICLE OF FOOTWEAR HAVING A
TEXTILE UPPER****BACKGROUND OF THE INVENTION****1. Field of the Invention**

The present invention relates to footwear. The invention concerns, more particularly, an article of footwear incorporating an upper that is at least partially formed from a textile material.

2. Description of Background Art

Conventional articles of athletic footwear include two primary elements, an upper and a sole structure. The upper provides a covering for the foot that securely receives and positions the foot with respect to the sole structure. In addition, the upper may have a configuration that protects the foot and provides ventilation, thereby cooling the foot and removing perspiration. The sole structure is secured to a lower surface of the upper and is generally positioned between the foot and the ground. In addition to attenuating ground reaction forces and absorbing energy (i.e., imparting cushioning), the sole structure may provide traction and control potentially harmful foot motion, such as over pronation. Accordingly, the upper and the sole structure operate cooperatively to provide a comfortable structure that is suited for a wide variety of ambulatory activities, such as walking and running. The general features and configuration of the conventional upper are discussed in greater detail below.

The upper forms a void on the interior of the footwear for receiving the foot. The void has the general shape of the foot, and access to the void is provided by an ankle opening. Accordingly, the upper extends over the instep and toe areas of the foot, along the medial and lateral sides of the foot, and around the heel area of the foot. A lacing system is often incorporated into the upper to selectively increase the size of the ankle opening and permit the wearer to modify certain dimensions of the upper, particularly girth, to accommodate feet with varying proportions. In addition, the upper may include a tongue that extends under the lacing system to enhance the comfort of the footwear, and the upper may include a heel counter to limit movement of the heel.

Various materials may be utilized in manufacturing the upper. The upper of an article of athletic footwear, for example, may be formed from multiple material layers that include an exterior layer, an intermediate layer, and an interior layer. The materials forming the exterior layer of the upper may be selected based upon the properties of wear-resistance, flexibility, and air-permeability, for example. With regard to the exterior layer, the toe area and the heel area may be formed of leather, synthetic leather, or a rubber material to impart a relatively high degree of wear-resistance. Leather, synthetic leather, and rubber materials may not exhibit the desired degree of flexibility and air-permeability. Accordingly, various other areas of the exterior layer of the upper may be formed from a synthetic or natural textile. The exterior layer of the upper may be formed, therefore, from numerous material elements that each impart different properties to specific portions of the upper.

An intermediate layer of the upper may be formed from a lightweight polymer foam material that provides cushioning and protects the foot from objects that may contact the upper. Similarly, an interior layer of the upper may be formed of a moisture-wicking textile that removes perspiration from the area immediately surrounding the foot. In some articles of athletic footwear, the various layers may be

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joined with an adhesive, and stitching may be utilized to join elements within a single layer or to reinforce specific areas of the upper.

Although the materials selected for the upper vary significantly, textile materials often form at least a portion of the exterior layer and interior layer. A textile may be defined as any manufacture from fibers, filaments, or yarns characterized by flexibility, fineness, and a high ratio of length to thickness. Textiles generally fall into two categories. The first category includes textiles produced directly from webs of filaments or fibers by randomly interlocking to construct non-woven fabrics and felts. The second category includes textiles formed through a mechanical manipulation of yarn, thereby producing a woven fabric, for example.

Yarn is the raw material utilized to form textiles in the second category. In general, yarn is defined as an assembly having a substantial length and relatively small cross-section that is formed of at least one filament or a plurality of fibers. Fibers have a relatively short length and require spinning or twisting processes to produce a yarn of suitable length for use in textiles. Common examples of fibers are cotton and wool. Filaments, however, have an indefinite length and may merely be combined with other filaments to produce a yarn suitable for use in textiles. Modern filaments include a plurality of synthetic materials such as rayon, nylon, polyester, and polyacrylic, with silk being the primary, naturally-occurring exception. Yarn may be formed of a single filament, which is conventionally referred to as a monofilament yarn, or a plurality of individual filaments grouped together. Yarn may also include separate filaments formed of different materials, or the yarn may include filaments that are each formed of two or more different materials. Similar concepts also apply to yarns formed from fibers. Accordingly, yarns may have a variety of configurations that generally conform to the definition provided above.

The various techniques for mechanically manipulating yarn into a textile include interweaving, intertwining and twisting, and interlooping. Interweaving is the intersection of two yarns that cross and interweave at right angles to each other. The yarns utilized in interweaving are conventionally referred to as warp and weft. Intertwining and twisting encompasses procedures such as braiding and knotting where yarns intertwine with each other to form a textile. Interlooping involves the formation of a plurality of columns of intermeshed loops, with knitting being the most common method of interlooping.

The textiles utilized in footwear uppers generally provide a lightweight, air-permeable structure that is flexible and comfortably receives the foot. In order to impart other properties to the footwear, including durability and stretch-resistance, additional materials are commonly combined with the textile, including leather, synthetic leather, or rubber, for example. With regard to durability, U.S. Pat. No. 4,447,967 to Zaino discloses an upper formed of a textile material that has a polymer material injected into specific zones to reinforce the zones against abrasion or other forms of wear. Regarding stretch resistance, U.S. Pat. No. 4,813,158 to Brown and U.S. Pat. No. 4,756,098 to Boggia both disclose a substantially inextensible material that is secured to the upper, thereby limiting the degree of stretch in specific portions of the upper.

From the perspective of manufacturing, utilizing multiple materials to impart different properties to an article of footwear may be an inefficient practice. For example, the various materials utilized in a conventional upper are not generally obtained from a single supplier. Accordingly, a manufacturing facility must coordinate the receipt of spe-

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cific quantities of materials with multiple suppliers that may have distinct business practices or may be located in different regions or countries. The various materials may also require additional machinery or different assembly line techniques to cut or otherwise prepare the material for incorporation into the footwear. In addition, incorporating separate materials into an upper may involve a plurality of distinct manufacturing steps requiring multiple individuals. Employing multiple materials, in addition to textiles, may also detract from the breathability of footwear. Leather, synthetic leather, or rubber, for example, are not generally permeable to air. Accordingly, positioning leather, synthetic leather, or rubber on the exterior of the upper may inhibit air flow through the upper, thereby increasing the amount of perspiration, water vapor, and heat trapped within the upper and around the foot.

SUMMARY OF THE INVENTION

The present invention is an upper for an article of footwear, the upper incorporating a textile element formed with a knitting machine, for example. In one aspect of the invention, the textile element has edges that are joined together to define at least a portion of a void for receiving a foot. In another aspect of the invention, the textile element has a first area and a second area of unitary construction. The first area is formed of a first stitch configuration, and the second area is formed of a second stitch configuration that is different from the first stitch configuration to impart varying textures to a surface of the textile element. The knitting machine may have a configuration that forms the textile element through either warp knitting or weft knitting.

Another aspect of the invention involves a method of manufacturing an article of footwear. The method includes a step of mechanically-manipulating a yarn with a circular knitting machine, for example, to form a cylindrical textile structure. In addition, the method involves removing at least one textile element from the textile structure, and incorporating the textile element into an upper of the article of footwear.

In another aspect of the invention, an article of footwear has an upper and a sole structure secured to the upper. The upper incorporates a textile element formed with a knitting machine. The textile element is removed from a textile structure that includes an outline of the textile element, and the textile element has edges that are joined together to define at least a portion of a void for receiving a foot.

The advantages and features of novelty characterizing the present invention are pointed out with particularity in the appended claims. To gain an improved understanding of the advantages and features of novelty, however, reference may be made to the following descriptive matter and accompanying drawings that describe and illustrate various embodiments and concepts related to the invention.

DESCRIPTION OF THE DRAWINGS

The foregoing Summary of the Invention, as well as the following Detailed Description of the Invention, will be better understood when read in conjunction with the accompanying drawings.

FIG. 1 is a lateral elevational view of an article of footwear having an upper in accordance with the present invention.

FIG. 2 is a lateral elevational view of the upper.

FIG. 3 is a top plan view of the upper.

FIG. 4 is a rear elevational view of the upper.

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FIG. 5 is a bottom plan view of the upper.

FIG. 6 is a first cross-sectional view of the upper, as defined by section line 6-6 in FIG. 2.

FIG. 7 is a second cross-sectional view of the upper, as defined by section line 7-7 in FIG. 2.

FIG. 8 is a plan view of a textile element that forms at least a portion of the upper.

FIG. 9 is a perspective view of a textile structure that incorporates two of the textile element.

FIG. 10 is a plan view of another textile element.

FIG. 11 is a plan view of yet another textile element.

FIG. 12 is a lateral elevational view of another article of footwear having an upper in accordance with the present invention.

FIG. 13 is a lateral elevational view of yet another article of footwear having an upper in accordance with the present invention.

FIG. 14 is a cross-sectional view of the footwear depicted in FIG. 13, as defined by section line 14-14.

DETAILED DESCRIPTION OF THE INVENTION

The following discussion and accompanying figures disclose an article of footwear 10 and a method of manufacturing footwear 10, or components thereof, in accordance with the present invention. Footwear 10 is depicted in the figures and discussed below as having a configuration that is suitable for athletic activities, particularly running. The concepts disclosed with respect to footwear 10 may, however, be applied to footwear styles that are specifically designed for a variety of other athletic activities, including basketball, baseball, football, soccer, walking, and hiking, for example, and may also be applied to various non-athletic footwear styles. Accordingly, one skilled in the relevant art will recognize that the concepts disclosed herein may be applied to a wide range of footwear styles and are not limited to the specific embodiments discussed below and depicted in the figures.

The primary elements of footwear 10 are depicted in FIG. 1 as being a sole structure 20 and an upper 30. Sole structure 20 is secured to a lower portion of upper 30 and provides a durable, wear-resistant component that imparts cushioning as footwear 10 impacts the ground. Upper 30 is at least partially formed from a textile element 40 that defines an interior void for comfortably receiving a foot and securing a position of the foot relative to sole structure 20. Various edges of textile element 40 are then secured together to form the shape of upper 30. In some embodiments, textile element 40 may form substantially all of upper 30, or textile element 40 may only be a portion of an upper.

Sole structure 20 has a generally conventional configuration that includes a midsole 21 and an outsole 22. Midsole 21 is secured to a lower portion of upper 30 and is formed of a polymer foam material, such as ethylvinylacetate or polyurethane. Accordingly, midsole 21 attenuates ground reaction forces and absorbs energy (i.e., provides cushioning) as sole structure 20 impacts the ground. To enhance the force attenuation and energy absorption characteristics of sole structure 20, midsole 21 may incorporate a fluid-filled bladder, as disclosed in U.S. Pat. Nos. 4,183,156 and 4,219,945 to Rudy. Alternately or in combination, midsole 21 may incorporate a plurality of discrete, columnar support elements, as disclosed in U.S. Pat. Nos. 5,343,639 and 5,353,523 to Kilgore et al. Outsole 22 is secured to a lower surface of midsole 21 and may be formed from carbon black rubber compound to provide a durable, wear-resistant surface for

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engaging the ground. Outsole 22 may also incorporate a textured lower surface to enhance the traction characteristics of footwear 10. In addition, footwear 10 may include an insole (not depicted), which is a relatively thin, cushioning member located within upper 30 and adjacent to a plantar surface of the foot for enhancing the comfort of footwear 10.

Sole structure 20 is described above as having the elements of a conventional sole structure for athletic footwear. Other footwear styles, including, dress shoes and boots, for example, may have other types of conventional sole structures specifically tailored for use with the respective types of footwear. In addition to a conventional configuration, however, sole structure 20 may also exhibit a unique, non-conventional structure. Accordingly, the particular configuration of sole structure 20 may vary significantly within the scope of the present invention to include a wide range of configurations, whether conventional or non-conventional.

Upper 30 is depicted in FIGS. 2-7 as having a lateral region 31, an opposite medial region 32, an instep region 33, a lower region 34, and a heel region 35. Lateral region 31 extends through a longitudinal length of footwear 10 and is generally configured to contact and cover a lateral side of the foot. Medial region 32 has a similar configuration that generally corresponds with a medial side of the foot. Instep region 33 is positioned between lateral region 31 and medial region 32, and instep region 33 extends over an instep area of the foot. Lower region 34 forms a bottom surface of upper 30 and also extends through the longitudinal length of footwear 10. Heel region 35 forms a rear portion of upper 30 and is generally configured to contact and cover a heel area of the foot. In addition, lateral region 31, medial region 32, instep region 33, and heel region 35 cooperatively define an ankle opening 36 for providing the foot with access to the void within upper 30.

Upper 30 is at least partially formed from textile element 40, which forms regions 31-35, and may also include laces or other elements associated with a conventional upper for footwear. Textile element 40 is a single material element that is formed to exhibit a unitary (i.e., one-piece) construction, and textile element 40 is formed or otherwise shaped to extend around the foot. As depicted in FIGS. 2-7, textile element 40 forms both an exterior surface and an interior surface of upper 30. Textile element 40 may be formed as a part of a larger textile element. Textile element 40 is then removed from the larger textile element and various edges of textile element 40 are secured together to form the shape of upper 30. A plurality of seams 51-54 are formed, therefore, when joining the edges of the textile element. Seam 51 extends along the longitudinal length of lower region 34 and is centrally-located with respect to lateral region 31 and medial region 32. Seam 52 is also centrally-located and extends upward along heel region 35. A seam 53 is positioned in a forefoot area of upper 30 and joins a portion of lower region 34 with both of lateral region 31 and medial region 32. In addition, a seam 54 is positioned in a rear area of upper 30 and joins a portion of lower region 34 with heel region 35.

Textile element 40 exhibits the general shape depicted in FIG. 8 prior to the formation of seams 51-54. Following formation of seams 51-54, however, textile element 40 exhibits the shape of upper 30 depicted in FIGS. 2-7. Seams 51-54 are formed by securing various edges of textile element 40 together. More specifically, (1) seam 51 is formed by securing an edge 41a with an edge 41b; (2) seam 52 is formed by securing an edge 42a with an edge 42b; (3) a first portion of seam 53 is formed by securing an edge 43a with an edge 43b (4) a second portion of seam 53 is formed

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by securing an edge 43c with an edge 43d; (5) a first portion of seam 54 is formed by securing an edge 44a with an edge 44b; and (6) a second portion of seam 54 is formed by securing an edge 44c with an edge 44d. Referring to FIG. 8, the positions of regions 31-35 and ankle opening 36 are identified to provide a frame of reference relating to the various portions of textile element 40.

In order to join edges 41a and 41b to form seam 51, textile element 40 is folded or otherwise overlapped such that edge 41a is placed adjacent to edge 41b. Stitching, an adhesive, or heat bonding, for example, is then utilized to secure edge 41a and edge 41b. Textile element 40, as depicted in FIG. 8, has a generally planar configuration. Upon the formation of seam 51, however, one portion of textile element 40 overlaps the other portion of textile element 40. The volume between the overlapping portions effectively forms a portion of the void within upper 30 for receiving the foot.

The folding or overlapping of textile element 40 to form seam 51 places edge 42a adjacent to edge 42b, which facilitates the formation of seam 52. With reference to FIG. 8, an edge 45 forms a generally u-shaped area in textile element 40. Upon the joining of edges 42a and 42b to form seam 52, the u-shaped area becomes an aperture in textile element 40 and effectively forms ankle opening 36. Each of edges 43a-43d and edges 44a-44d are formed from a generally v-shaped area of textile element 40. Accordingly, seams 53 and 54 may be formed by closing the v-shaped areas and securing the various edges together.

Following the formation of each of seams 51-54, the manufacturing of upper 30 is essentially complete. Various finishing steps may be performed, such as reinforcing ankle opening 36, for example. Upper 30 (i.e., textile element 40) is then secured to sole structure 20, with an adhesive, for example. The insole is then placed into the void within upper 30 and adjacent to lower region 34. In some embodiments, various reinforcing members may be added to the exterior or interior surface of upper 20 in order to limit the degree of stretch in upper 20 or provide enhanced wear-resistance. In addition, a lacing system may be added to provide adjustability.

Textile element 40 is a single material element with a unitary construction, as discussed above. As defined for purposes of the present invention, unitary construction is intended to express a configuration wherein portions of a textile element are not joined together by seams or other connections, as depicted with textile element 40 in FIG. 8. Although the various edges 41a-44d are joined together to form seams 51-54, the various portions of textile element 40 are formed as an unitary element without seams, as discussed below.

Textile element 40 is primarily formed from one or more yarns that are mechanically-manipulated through either an interweaving, intertwining and twisting, or interlooping process, for example. As discussed in the Background of the Invention section above, interweaving is the intersection of two yarns that cross and interweave at right angles to each other. The yarns utilized in interweaving are conventionally referred to as warp and weft. Intertwining and twisting encompasses procedures such as braiding and knotting where yarns intertwine with each other to form a textile. Interlooping involves the formation of a plurality of columns of intermeshed loops, with knitting being the most common method of interlooping. Textile element 40 may, therefore, be formed from one of these processes for manufacturing a textile.

A variety of mechanical processes have been developed to manufacture a textile. In general, the mechanical processes

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may be classified as either warp knitting or weft knitting. With regard to warp knitting, various specific sub-types that may be utilized to manufacture a textile include tricot, raschel, and double needle-bar raschel (which further includes jacquard double needle-bar raschel). With regard to weft knitting, various specific sub-types that may be utilized to manufacture a textile include circular knitting and flat knitting. Various types of circular knitting include sock knitting (narrow tube), body garment (seamless or wide tube), and jacquard.

Textile element 40 may be formed through any of the mechanical processes discussed above. Accordingly, textile element 40 may be formed on either a warp knitting machine or a weft knitting machine. One suitable knitting machine for forming textile element 40 is a wide-tube circular knit jacquard machine. Another suitable knitting machine for forming textile element 40 is a wide-tube circular knitting machine that is produced in the Lonati Group by Santoni S.p.A. of Italy under the SM8 TOP1 model number. This Santoni S.p.A. wide-tube circular knitting machine may form a textile structure having a diameter that ranges from 10 inches to 20 inches, with 8 feeds for each diameter. The machine exhibits a maximum 140 revolutions per minute for 10 inch diameters, and a maximum 120 revolutions per minute for 13 inch diameters. Furthermore, the machine gauge is variable between 16, 22, 24, 26, 28, and 32 needles per inch, and is suitable for various needle gauges ranging from 48 to 75.

A wide-tube circular knitting machine, as produced by Santoni S.p.A., forms a generally cylindrical textile structure and is capable of forming various types of stitches within a single textile structure. In general, the wide-tube circular knitting machine may be programmed to alter the design on the textile structure through needle selection. That is, the type of stitch that is formed at each location on the textile structure may be selected by programming the wide-tube circular knitting machine such that specific needles either accept or do not accept yarn at each stitch location. In this manner, various patterns, textures, or designs may be selectively and purposefully imparted to the textile structure.

An example of a textile structure 60 that may be formed with a wide-tube circular knitting machine is depicted in FIG. 9. Textile structure 60 has a generally cylindrical configuration, and the types of stitches vary throughout textile structure 60 so that a pattern is formed with the outline of textile element 40. That is, differences in the stitches within textile structure 60 form an outline with the shape and proportions of textile element 40.

The Santoni S.p.A. wide-tube circular knitting machine may form a textile structure having a diameter that ranges from 10 inches to 16 inches, as discussed above. Assuming that textile structure 60 exhibits a diameter of 10 inches, then the circumference of textile structure 60 is approximately 31 inches. In many circumstances, the total width of textile element 40 will be approximately 12 inches, depending upon the size of footwear 10. The outlines for at least two textile elements 40 may, therefore, be formed on textile structure 60. Referring to FIG. 9, the outline of textile element 40 is depicted on a front portion of textile structure 60, and the outline of another textile element 40 is depicted on a rear portion of textile structure 60. Accordingly, a first textile element 40 and a second textile element 40 may be simultaneously formed in a single textile structure 60. As the diameter of textile element 60 is increased or the width of textile element 40 decreases, however, an even greater number of textile elements 40 may be outlined on textile structure 60.

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Textile structure 60 may be formed with a wide-tube circular knitting machine, as discussed above. The types of stitches that form textile structure 60 may be varied to form an outline of one or more textile elements 40 on textile structure 60. That is, the wide-tube circular knitting machine may be programmed to form different types of stitches in textile structure 60 so as to outline one or more textile elements 40. Each textile element 40 is then removed from textile structure 60 with a die-cutting, laser-cutting, or other conventional cutting operation. Once textile element 40 is removed from textile structure 60, seams 51-54 may be formed and textile element 40 may be incorporated into footwear 10.

The yarn forming textile element 40 may be generally defined as an assembly having a substantial length and relatively small cross-section that is formed of at least one filament or a plurality of fibers. Fibers have a relatively short length and require spinning or twisting processes to produce a yarn of suitable length for use in an interlooping process. Common examples of fibers are cotton and wool. Filaments, however, have an indefinite length and may merely be combined with other filaments to produce a yarn suitable for use in an interlooping process. Modern filaments include a plurality of synthetic materials such as rayon, nylon, polyester, and acrylic, with silk being the primary, naturally-occurring exception. Yarn may be formed of a single filament (conventionally referred to as a monofilament yarn) or a plurality of individual filaments. Yarn may also be formed of separate filaments formed of different materials, or the yarn may be formed of filaments that are each formed of two or more different materials. Similar concepts also apply to yarns formed from fibers. Accordingly, yarns may have a variety of configurations within the scope of the present invention that generally conform to the definition provided above.

In order to provide the stretch and recovery properties to upper 30, and particularly textile element 40, a yarn that incorporates an elastane fiber may be utilized. Elastane fibers are available from E.I. duPont de Nemours Company under the LYCRA trademark. Such fibers may have the configuration of covered LYCRA, wherein the fiber includes a LYCRA core that is surrounded by a nylon sheath. One suitable yarn, for example, includes a 70 denier elastane core that is covered with nylon having a 2 ply, 80 denier, 92 filament structure. Other fibers or filaments exhibiting elastic properties may also be utilized.

As discussed above, a yarn that incorporates elastane fibers is suitable for textile element 40. A plurality of other yarns, whether elastic or inelastic, are also suitable for textile element 40. The characteristics of the yarn selected for textile element 40 depend primarily upon the materials that form the various filaments and fibers. Cotton, for example, provides a soft hand, natural aesthetics, and biodegradability. Elastane fibers, as discussed above, provide substantial stretch and recoverability. Rayon provides high luster and moisture absorption. Wool also provides high moisture absorption, in addition to insulating properties. Polytetrafluoroethylene coatings may provide a low friction contact between the textile and the skin. Nylon is a durable and abrasion-resistant material with high strength. Finally, polyester is a hydrophobic material that also provides relatively high durability. Accordingly, the materials comprising the yarn may be selected to impart a variety of physical properties to textile element 40, and the physical properties may include, for example, strength, stretch, support, stiffness, recovery, fit, and form.

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Textile element **40** is depicted as having a generally smooth, non-varied stitch configuration. That is, similar stitches are utilized throughout textile element **40** to impart a common texture to the various portions of textile element **40**. As discussed above, however, a wide-tube circular knitting machine is generally capable of forming various types of stitches within a single textile structure. The wide-tube circular knitting machine may, therefore, vary the stitches within textile element **40** to produce various patterns, designs, or textures, for example. Various types of stitches may also be formed with other types of knitting machines. With reference to FIG. **10**, a textile element **40'** with the general shape of textile element **40** is depicted as having various areas with different textures. For example, a central area that corresponds with instep region **33** has a first texture **46'** that is generally smooth. In addition, textile element **40'** includes a second texture **47'** that is a plurality of longitudinal ribs. When incorporated into footwear **10**, the ribs will extend longitudinally along lateral region **31** and medial region **32**, and the ribs may extend into heel region **35**. The ribs may be present for aesthetic purposes, or may affect the stretch properties of upper **20**, for example. Accordingly, textile element **40'** exhibits areas with different textures in a single element of textile material.

Many conventional articles of footwear incorporate uppers with various material elements that each exhibit different properties. For example, a first material element may be smooth, and a second material element may be textured. The first and second material elements are then stitched together to form a portion of the conventional upper. Textile element **40'** also exhibits smooth and textured areas. In contrast with the conventional upper, however, first texture **46'** and second texture **47'** are incorporated into a single, unitary element of textile, rather than two separate elements that are stitched or otherwise joined together.

A textile structure **40''** is depicted in FIG. **11** and has the general shape of both textile element **40** and textile element **40'**. Textile element **40''** includes areas with three different textures. A first texture **46''** is generally smooth and has the configuration of various strips that extends laterally across areas corresponding with lateral region **31**, medial region **32**, and instep region **33**. Various portions of textile element **40''** also include a second texture **47''**, which is generally rough in comparison with first texture **46''**. In addition, the area of textile element **40''** corresponding with instep region **33** includes a third texture **48''**. The different textures **46''-48''** are formed by merely varying the type of stitch formed by the wide-tube circular knitting machine at each location of textile element **40''**. Textures **46''-48''** may exhibit aesthetic differences, or the differences may be structural. For example, the degree of stretch in areas with textures **46''-48''** may be different, or the wear resistance of the areas may vary depending upon the stitch utilized. The air-permeability of textile element **40''** may also vary in the different areas. Third texture **48''** is formed to include a plurality of apertures that extend through textile element **40''**. The apertures may be formed by omitting stitches at specific locations during the wide-tube circular knitting process, and the apertures facilitate the transfer of air between the void within upper **20** and the area outside of upper **20**. Accordingly, the various stitches formed in textile element **40''**, or one of textile elements **40** or **40'**, may be utilized to vary the texture, physical properties, or aesthetics of footwear **10** within a single, unitary element of material.

In addition to varying the stitch types to form textures **46'-47'** and **46''-48''**, the type of yarn utilized in various areas of textile elements **40'** and **40''** may be changed to impart

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different properties. As discussed above, yarn may be formed from cotton, wool, elastane, rayon, nylon, and polyester, for example. Each of these yarn types may impart differing properties to the areas corresponding with textures **46'-47'** and **46''-48''**. For example, elastane may be utilized to impart stretch, wool may be utilized for insulation, and nylon may be utilized for durability. Accordingly, different yarn types may be utilized to impart different properties. The types of knitting that may be utilized to form different zones with different properties (e.g., yarn characteristics, textures, etc.) may vary significantly to include the various warp knitting and weft knitting processes discussed earlier, such as tricot, raschel, double needle-bar raschel, circular knitting, and flat knitting, for example.

An article of footwear **110** is depicted in FIG. **12** and includes a sole structure **120** and an upper **130**. Upper **130** includes a textile element **140** having the general configuration of textile element **40**. As with textile element **40**, textile element **140** forms both an exterior surface and an interior surface of upper **130**. In addition, upper **130** includes a lace **131** and a plurality of elements **132-135** that also form a portion of the exterior surface. Lace **131** extends through a plurality of apertures formed in textile element **140**. The apertures may be formed by omitting stitches at specific locations. Element **132** is positioned in a forefoot area of footwear **110** and may be formed of leather or rubber, for example, to provide additional wear-resistance. Element **133** extends around the ankle opening to reinforce and limit stretch in the area of the ankle opening. Element **134** extends around the heel region to counter movement of the heel and seat the heel above sole structure **120**. Furthermore, elements **135** are substantially inextensible strips of material, such as leather or synthetic leather, that limit stretch on the lateral side of footwear **110**. Whereas upper **30** was almost exclusively formed by textile element **40**, upper **130** also includes lace **131** and elements **132-135**. Accordingly, an upper in accordance with the present invention may incorporate a plurality of additional components.

Another article of footwear **210** is depicted in FIGS. **13-14** and includes a sole structure **220** and an upper **230**. Upper **230** includes a textile element **240** that forms an interior layer. In addition, upper **230** includes an intermediate layer **250** and an exterior layer **260**. As discussed in the Background of the Invention section above, the upper of a conventional article of footwear may be formed from multiple material layers that include an exterior layer, an intermediate layer, and an interior layer. The materials forming the exterior layer of the upper may be selected based upon the properties of wear-resistance, flexibility, and air-permeability, for example. The intermediate layer of the upper may be formed from a lightweight polymer foam material that provides cushioning and protects the foot from objects that may contact the upper. Similarly, an interior layer of the upper may be formed of a moisture-wicking textile that removes perspiration from the area immediately surrounding the foot.

Upper **230** has a configuration that is similar to the configuration of the conventional upper in that various material layers are utilized. In contrast with the conventional upper, however, the interior layer is formed of textile element **240**, which is manufactured through the process discussed above. That is, textile element **240** is a single element of textile that forms the interior layer of upper **230**. A benefit to utilizing textile element **240** for the interior layer is that textile element **240** includes few seams that may contact the foot. In addition, the stitches utilized at various locations of textile element **240** may modify the texture of the interior

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surface of upper 230, thereby limiting the degree of slip that occurs between the foot and upper 230 or enhancing the air-permeability of upper 230 in specific locations.

Various warp knitting or weft knitting processes may be utilized to form textile element 40, or the various other textile elements discussed above. An advantage of this process is that various stitches may be incorporated into specific locations of textile element 40 to modify the physical properties or aesthetics of textile element 40. Whereas a conventional upper includes various elements that stitched or adhesively joined, textile element 40 is a single, unitary element of material. From the perspective of manufacturing, utilizing multiple materials to impart different properties to an article of footwear may be an inefficient practice. By forming textile element 40 to be a single, unitary element of material, however, efficiency is increased in that upper 20 may include a single textile element, rather than numerous joined elements.

A variety of knitting processes may be utilized to form textile element 40, as discussed above. As a specific example, a jacquard double needle-bar raschel knitting machine may be utilized to form a flat textile structure, and may also be utilized to form the textile structure to have the configuration of a spacer mesh textile. Unlike textile structure 60, which exhibits a generally cylindrical configuration, the textile structure formed with the jacquard double needle-bar raschel knitting machine will have a flat configuration. Like textile structure 60, however, an outline of a textile element may be imparted to the textile structure formed with the jacquard double needle-bar raschel knitting machine. That is, differences in the stitches within the textile structure may form an outline with the shape and proportions of the intended textile element. Accordingly, the textile element may be removed from the textile structure and incorporated into footwear 10. In addition, the jacquard double needle-bar raschel knitting machine may be utilized to impart various textures, different properties, or different yarn types to the textile element. Similarly, other types of knitting, such as a flat knitting, may be utilized within the scope of the present invention to impart various textures, different properties, or different yarn types to the textile element.

The present invention is disclosed above and in the accompanying drawings with reference to a variety of embodiments. The purpose served by the disclosure, however, is to provide an example of the various features and concepts related to the invention, not to limit the scope of the invention. One skilled in the relevant art will recognize that numerous variations and modifications may be made to the embodiments described above without departing from the scope of the present invention, as defined by the appended claims.

That which is claimed is:

1. An article of footwear comprising:

an upper incorporating a weft-knitted textile element having edges that are joined together to define at least a portion of a void for receiving a foot, wherein the weft-knitted textile element incorporates a single type of textile having a plurality of knit constructions; and a sole structure secured to the upper.

2. The article of footwear recited in claim 1, wherein the weft-knitted textile element forms at least a portion of a lateral side, a medial side, and an instep region of the upper.

3. The article of footwear recited in claim 1, wherein the edges include a pair of first edges that are joined to form a first seam extending longitudinally along a lower region of the upper.

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4. The article of footwear recited in claim 3, wherein the edges include a pair of second edges that are joined to form a second seam extending along a heel region of the upper.

5. The article of footwear recited in claim 4, wherein the second seam extends vertically.

6. The article of footwear recited in claim 4, wherein the edges include at least a pair of third edges that are joined to form a third seam extending through a forefoot area of the upper.

7. The article of footwear recited in claim 1, wherein the weft-knitted textile element is one of an exterior layer, an intermediate layer, and an interior layer of the upper.

8. The article of footwear recited in claim 1, wherein the upper includes an exterior layer, an intermediate layer, and an interior layer, and the weft-knitted textile element forms at least a portion of the interior layer.

9. The article of footwear recited in claim 1, wherein the weft-knitted textile element forms at least a portion of both an interior surface and an exterior surface of the upper.

10. The article of footwear recited in claim 9, wherein at least one additional element is secured to the exterior surface and forms a portion of the exterior surface.

11. The article of footwear recited in claim 10, wherein the additional element is secured to a forefoot area of the upper.

12. The article of footwear recited in claim 10, wherein the additional element is secured to a heel area of the upper.

13. The article of footwear recited in claim 1, wherein the textile element forms an interior surface of the upper.

14. The article of footwear recited in claim 1, wherein the weft-knitted textile element is created by circular knitting.

15. The article of footwear recited in claim 1, wherein the weft-knitted textile element is created by flat knitting.

16. An article of footwear comprising:

an upper incorporating a weft-knitted textile element, the textile element having a first area and a second area with a unitary construction, the first area being formed of a first stitch configuration, and the second area being formed of a second stitch configuration that is different from the first stitch configuration to impart varying properties to the textile element; and a sole structure secured to the upper.

17. The article of footwear recited in claim 16, wherein the first stitch configuration provides a substantially smooth texture to the first area, and the second stitch configuration provides a texture to the second area that is rougher than the smooth texture.

18. The article of footwear recited in claim 17, wherein the second stitch configuration forms a rib structure in the second area.

19. The article of footwear recited in claim 16, wherein at least one of the first stitch configuration and the second stitch configuration forms an aperture in the weft-knitted textile element.

20. The article of footwear recited in claim 16, wherein the weft-knitted textile element is one of an exterior layer, an intermediate layer, and an interior layer of the upper.

21. The article of footwear recited in claim 16, wherein the upper includes an exterior layer, an intermediate layer, and an interior layer, and the weft-knitted textile element forms at least a portion of the interior layer.

22. The article of footwear recited in claim 16, wherein the textile layer forms at least a portion of both the interior surface and an exterior surface of the upper.

23. The article of footwear recited in claim 16, wherein the weft-knitted textile element forms an interior surface of the upper.

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24. An article of footwear comprising:

an upper incorporating a textile element having edges that are joined together to form seams and define at least a portion of a void for receiving a foot, the seams including a first seam and a second seam, the first seam extending from a heel area to a forefoot area of the footwear along a lower surface of the upper, and the second seam extending vertically in the heel area, wherein the textile element incorporates a single type of textile having a plurality of knit constructions; and a sole structure secured to the upper.

25. The article of footwear recited in claim 24, wherein the footwear includes a third seam extending through the forefoot area of the upper.

26. The article of footwear recited in claim 24, wherein at least one of the knit constructions forms an aperture in the textile element.

27. The article of footwear recited in claim 24, wherein the knit constructions produce varying properties in the textile element including a varying elasticity of the textile element.

28. The article of footwear recited in claim 24, wherein the knit constructions produce varying properties in the textile element including a varying air permeability of the textile element.

29. The article of footwear recited in claim 24, wherein the textile element is one of an exterior layer, an intermediate layer, and an interior layer of the upper.

30. The article of footwear recited in claim 24, wherein the textile element forms at least a portion of both an interior surface and an exterior surface of the upper.

31. The article of footwear recited in claim 24, wherein the textile element forms an interior surface of the footwear, and at least one additional layer forms an exterior surface of the footwear.

32. The article of footwear recited in claim 24, wherein at least a portion of the textile element has a weft knitted construction.

33. The article of footwear recited in claim 32, wherein the weft knitted construction is produced by one of circular knitting and flat knitting.

34. The article of footwear recited in claim 24, wherein the textile element has a warp knitted construction.

35. The article of footwear recited in claim 34, wherein the warp knitted construction is produced by a jacquard double needle-bar raschel.

36. An article of footwear comprising:

an upper incorporating a knitted textile element formed with a knitting machine, the textile element being removed from a textile structure that includes an out-

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line of the textile element, and the textile element having edges that are joined together to define at least a portion of a void for receiving a foot, wherein the textile element incorporates a single type of textile having a plurality of knit constructions; and

a sole structure secured to the upper.

37. The article of footwear recited in claim 36, wherein the knitted textile element has a structure formed by a wide-tube circular knitting machine.

38. The article of footwear recited in claim 36, wherein the knitted textile element has a structure formed by a jacquard double needle-bar raschel knitting machine.

39. The article of footwear recited in claim 36, wherein the edges include a pair of first edges that are joined to form a first seam extending longitudinally along a lower region of the upper.

40. The article of footwear recited in claim 39, wherein the edges include a pair of second edges that are joined to form a second seam extending along a heel region of the upper.

41. The article of footwear recited in claim 40, wherein the edges include at least a pair of third edges that are joined to form a second seam extending through a forefoot area of the upper.

42. The article of footwear recited in claim 36, wherein the knitted textile element is one of an exterior layer, an intermediate layer, and an interior layer of the upper.

43. The article of footwear recited in claim 36, wherein the knitted textile element forms an interior surface of the upper.

44. An article of footwear comprising:

an upper incorporating a flat-knitted textile element, the flat-knitted textile element having a first area with a first unitary construction and a second area with a second unitary construction different from the first unitary construction, the first area having a first set of properties, and the second area having a second set of properties that is different from the first set of properties to impart varying characteristics to the textile element; and

a sole structure secured to the upper.

45. The article of footwear recited in claim 44, wherein the first set of properties and the second set of properties are at least one of a stitch configuration and a yarn type.

46. The article of footwear recited in claim 44, wherein the textile element is one of an exterior layer, an intermediate layer, and an interior layer of the upper.

* * * * *

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,347,011 B2
APPLICATION NO. : 10/791289
DATED : March 25, 2008
INVENTOR(S) : Bhupesh Dua et al.

Page 1 of 1

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the Title page, Item (56), References Cited section, Other Publications:

Please insert the following reference: --International Search Report in corresponding PCT application, International Application No. PCT/US2005/004776, mailed May 19, 2005.--

In Column 11, Claim 2, Line 62:

Please replace "welt-knitted" with --weft-knitted--

In Column 12, Claim 8, Line 15:

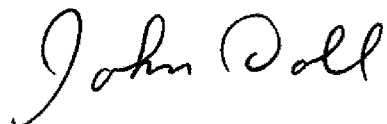
Please replace "farms" with --forms--

In Column 12, Claim 23, Line 66:

Please replace "textilc" with --textile--

Signed and Sealed this

Seventeenth Day of February, 2009



JOHN DOLL
Acting Director of the United States Patent and Trademark Office

CERTIFICATE OF SERVICE

I hereby certify that I filed the foregoing Brief for Appellant Nike, Inc. with the Clerk of the United States Court of Appeals for the Federal Circuit via the CM/ECF system this 15th day of December, 2014, and served a copy on counsel of record by the CM/ECF system.

/s/ Kevin A. Goldman

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CERTIFICATE OF COMPLIANCE

Pursuant to Fed. R. App. P. 32(a)(7)(C), the undersigned hereby certifies that this brief complies with the type-volume limitation of Fed. R. App. P. 32(a)(7)(B) and Circuit Rule 32(b).

1. Exclusive of the exempted portions of the brief, as provided in Fed. R. App. P. 32(a)(7)(B), the brief contains 8,397 words.
2. The brief has been prepared in proportionally spaced typeface using Microsoft Word 2010 in 14 point Times New Roman font. As permitted by Fed. R. App. P. 32(a)(7)(C), the undersigned has relied upon the word count feature of this word processing system in preparing this certificate.

/s/ Kevin A. Goldman

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December 15, 2014